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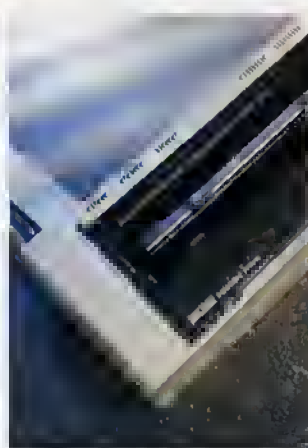
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Software Imperative have flouted all the laws of mathematics with Flipper 3 – the brand new utility that can split your PCW into eight working environments! Karen Donaghy investigates

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No problem is too small for LocoScriptin! Liz Bruce! Turn to our regular, three page guide to getting the best out of your favourite word processor

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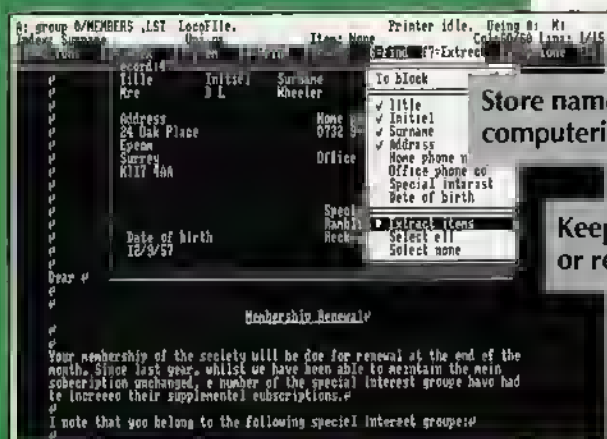
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Individually LocoScript 2 costs £29.95 and LocoFile costs £34.95  
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Sophie Lankenau - Editor

There's been a lot of very frenzied activity in the 8000 Plus office this month - most of which has been concentrated around the PCW which has been the lucky guinea-pig for Software Imperative's Flipper 3.

The program is quite simply, a marvel; it brings a flexibility of hitherto unknown proportions to the way your PCW works. No more do you have the frustrating delay while swapping between environments - Flipper allows you, (PCW memory permitting), to have up to eight of your favourite programs quite literally, at your fingertips. It is one of those utilities which has to be seen to be believed -

and we're giving you an exclusive look at the program in our review on page 10 of this month's issue.

When you've recovered from that, then there's plenty more to look forward to. We've turned our attention to the 8000 series printers in this month's step by step guide to PCW maintenance. Believe it or not, you can restore printer output to its original glory in just six easy steps! Month by month we are proving that DIY PCW maintenance is both easy to master - and very conservative in terms of costs. So, if your printer is falling you, roll up your sleeves and turn to page 57!

Don't miss the sequel to last month's PCW/PC feature; we're taking a look at software packages available for both machines. How do the PC versions of programs differ? Are they be easy to use? Page 46 has the answers to all of your questions.

LocoPlus, our regular section dedicated to your favourite word processor, has expanded this month to accommodate the LocoScript hints and tips you've been sending in. So, turn to page 20, and find out the very latest advice on how to get the best out of the LocoScript/PCW team.

I hope you enjoy May's 8000 Plus; now, on with the show!

## EASY RIDE FOR LOCALINK

**Locomotive Software announce revolutionary upgrade of PCW-PC file transfer utility, LocoLink**

LocoLink used to be an inhospitable little program: no menus, no helpful hints and a distinctly unfriendly persona. To bring it in line with its more chatty cousins - LocoScript, LocoMail and LocoFile - it has recently been given a massive revamp.

"We are responding to the fact that LocoLink was just too technical," said Howard Fisher from Locomotive. And the results are nothing short of a complete transformation.

For a start, the PCW side of the file transfer is now self-booting, and sports an easy-to-use menu. At the other end of the cable, all you need to do is to have LocoScript PC up and running.

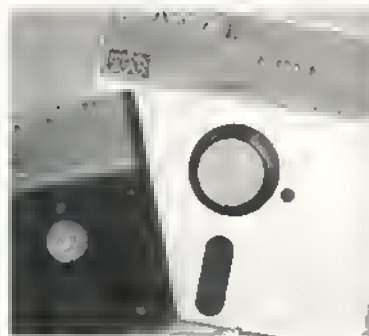
There you will find yourself witnessing the illusion that is the new look LocoLink's coup d'état. The PCW disc drive is actually

displayed on the PC as drive Z. What is stranger still, is that you can then treat those PCW files as ordinary PC files: editing them, or copying them straight on to your PC discs.

The other new feature is that now files can be sent the other way, from PC to PCW. This does require version 1.5 of LocoScript and the latest LocoScript 2 (version 2.31 for the 9512 and 2.30 for the 8000 series).

No doubt this update will serve Locomotive well, given that LocoScript PC has had a meteoric rise to fame. "Over the last few months we have probably sold more copies of LocoScript PC, than any other PC word processor in the country," Howard Fisher told us.

The new LocoLink, priced £29.95 (plus VAT) should hit the shelves at the end



**The new LocoLink is sure to woo the most stubborn files down the transfer cable!**

of May. If you have the existing version, you can upgrade for a small charge. Meanwhile, further details can be obtained from Locomotive on (0306) 740606

## THE GREAT VAT SWINDLE?

Many PCW users were left in turmoil following the latest VAT changes. Accounts Software that is programmed using the pre-budget figure of 15% has suddenly been rendered unusable. We took a look at some of the most popular programs to see how they were bearing up to the change.

Cornix Software's Simple Accounts II came up trumps. Their VAT rate is easy to change within the program. Owners of Money Manager PCW are also well-prepared for the chancellor's decision, with the ability to change VAT rate. Sagesoft have had to resort to sending their users a fact sheet on how to adapt their programs. And luckily programs such as Check Account II do not use VAT anyway.

If you are using any other accounts program, you are advised to get in touch with the supplier or manufacturer to find out what measures can be taken to accommodate the change.

Meanwhile, at the Locomotive camp, the VAT changes have arrived at a less than timely moment. The company were in the middle of preparing price reviews for later this year, when the extra 2.5% arrived to build in to the VAT-inclusive charges.

So, to avoid confusion, Locomotive have decided to bring the planned price



**Look out PCW users: the tax man cometh!**

changes forward in line with the new rate of VAT. For Locomotive's new price list, contact the company on (0306) 740606, or write to them at Dorking Business Park, Dorking, Surrey RH4 1HL

## OUT OF LUX

Fans of the RNLI or the Air Ambulance service should spare a thought for LuxSoft. After two years of raising money for charity by selling programs, they are now told that this is taxable income - despite its charitable destination.

All good things come to an end and LuxSoft put up a gallant struggle. The good news is that Basic Needs is still available but without the charity element. The new reduced price is £8.15 (including VAT). They still welcome charitable donations, but they must be on a separate cheque, made payable to the RNLI. Contact LuxSoft on (0726) 850820 for more details.

## POWER CUT

A new 'Uninterruptible Power Source' from Sorensen could save you much time and trouble in the event of a power cut. Smaller and cheaper than other UPS devices, the Power Protector warns you that the mains have gone down, and gives you eight minutes to save vital information to disc.

The manufacturers tell us that the unit is ideal for both the home and office environments. It costs £199 plus VAT, and is available from Sorensen Ltd, Kelfarn Business Park, Port Glasgow, Scotland

by Karen Donaghay

## Lunar Landscape

The 1991 Lunar diary, devised to help you with your gardening routine, is now available for the PCW 9512 as well as the 8000 series. Michael Soth will supply the file free of charge. Just send a disc to 52 Barrow Road, Shippon, Abingdon, Oxon, OX13 6JF, including a stamped addressed envelope for return postage.



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## SPREAD THE WORD

Coming to terms with new technology is hard enough for most people, but for those who are disabled there is an extra hurdle to deal with. They are all too often frustrated by purely physical obstacles.

Take the PCW for instance. The keyboard presents no problem to nimble fingers, but for many disabled people it is impossible to use. Likewise, the text on screen is too small for those with impaired vision to read.

Now all this has changed thanks to two new Shareware programs, Big Text and Autoword. The first of these - Big Text - changes the screen display. Rather than the normal spindly text it will be portrayed in a larger size - hence the name.

It can be used with some CP/M programs as well as in BASIC, allowing many to enjoy the delights of an 8000 Plus Listing for the first time. The most useful facet however, could prove to be the ability to display any ASCII file in big type.

Autoword is even more innovative. It allows the user to type using only the space bar. The logistics of the process are intriguing. There are several speeds: from very slow to very fast. Moving through the alphabet, a letter is chosen by pressing the space bar. And what's more, it doesn't matter whether several other keys are depressed at the same time.

The process continues until the entire document has been written. It may sound laboriously slow, but to many disabled people this program will be very welcome. By providing the means to write a private letter or document the PCW is now able to grant a level of independence that most of us take for granted.

In fact, the producers describe the PCW as "a remarkable machine - ideal for people with disabilities". They are, of course, not the only ones working in this field. The Deva trust aim to provide "practical help by using computer technology" and have been doing so ever since 1985.

They say that, "although computers cannot cure disabilities they can, and do, make life a lot easier." True enough and it is good to see that the PCW is playing a role. Both Big Text and Autoword are available from PCW-World on (0384) 66269. Further information can be obtained from David Axford on (0428) 656438. For more information on the work of the Deva Trust call (0270) 875656.



This is the logo to look out for if you are in search of software written specifically for use by disabled PCW users

## THE LIGHTWEIGHTS

It's official! The first portable dot matrix printer has finally arrived. Weighing in at only 5.9 lbs (just think of three bags of sugar or a very heavy lunch) it is very light - and also very small. The paper goes in one end of a closed box, and comes out the other - a technique known to printer people as flat-bed printing. Apart from the smooth operation, this method also ensures a blissful lack of paper jams.

Space conservation is the name of the game and a built-in sheet feeder is all part of the act. Fifty sheets of paper is as much as most people need from a sheet feeder and this is what it allows.

But the question on all of our lips is, will it work with the PCW? The answer is yes. LT20 - as the new printer is so temptingly called - can emulate the IBM Proprinter. Since LocoScript recognises this standard, it follows that the LT20 is



First of its kind: the new portable dot matrix printer

compatible too. Sadly, the diminutive size is not matched by the price. A tiny LT20 is worth a whole £424.35. Further details are available from the information hotline (0753) 685873.

## SMALL WORLD

Fancy attending a "global conference" on science fiction, cricket or even Twin Peaks? And no, you don't have to start saving for the airfare right now. Instead, it is all possible via your PCW, a modem and The Direct Connection (TDC).

There are a variety of topics on offer. The more serious minded will probably remember the fuss when 'cold water fusion' was 'discovered'. It turned out to be a storm in a teapots, but at the time scientists the world over were thrown into a flurry of activity. A TDC Newsgroup was set up to share and discuss experimental results and, in a brief moment of fame, messages were even featured on the BBC Horizon programme.

For a free on-line demonstration just set your modem to 081-853-3965 and

enter 'demo' at the 'log-in' prompt. Alternatively, a brochure can be ordered by telephoning (081) 8532283. The subscription price is £10 per month, with no connection fee.

And talking of connection fees, Micronet have recently changed their charging system. They tell us that the subscription for non-business users has gone up to £30 - a rise of £10. However, this is tempered by the fact that off-peak access is now completely free (apart from your usual telephone expenses).

This means that you can find out all about computers - and even play their on-line computer games (should you so desire!) for the price of a local call. More details on Micronet can be obtained by calling (0800) 200700.

## Missing cue?

Last month we showed you how to get your script on BBC radio. In Nick Vandome's article, Making Waves. But drama critics among you may also wish to know that the play shown in the screenshot was entitled Condition Purple, by Peter Turnwell, and was adapted by radio by Stephen Mulrine.

## Pac Attack

SCA have reduced the price of the Rampac by £10 making the cheapest of the range only £103.85. As the old saying goes, "look after the pennies, and the hundreds look after themselves!"

## A HOME FROM HOME

If - heaven forbid - your home and all its contents were whisked away overnight by a freak whirlwind, disappearing in a cloud of dust, are you sure that you would know exactly what was missing?

Keeping a record of your possessions and their value is one of those things that every sensible home owner should do, but few get round to. Now there is a program for the PCW that makes this task considerably easier.

Inventory is a database that can record every item in your home, down to the very last spoon. It can then list them all out in terms of location, value and date of purchase, as well as sorting them into their own categories - clothes, electrical equipment, furniture and so on.

Appreciating and depreciating assets can be picked out and adjusted. Then, with all the data entered, you can frighten yourself (or give yourself a pleasant surprise) by totting up the total value of all your worldly goods.

This all comes at the very reasonable price of £12. It is available from its creator, Mr Vickers, of 36 Bampton Grove, Birstall, West Yorkshire, WF17 9QZ.

His telephone number is (0924) 477890. Remember to state what



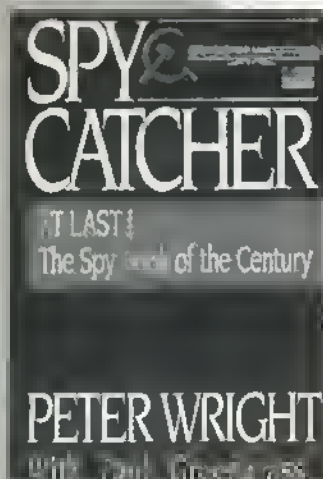
Inventory can help you to price up your home - right down to the very last chandelier bulb

model of PCW you own. Just one quibble. In the demonstration program he gave us, Mr Vickers has recorded only "40 computer magazines". Whatever happened to the other 16 issues of 8000 Plus, we wondered? And are the rest really only worth only £50? We've always thought that 8000 Plus is one of those items whose value appreciates with age!

## SECRET AGENT

It is unlikely to raise any objections in parliament and it will not be banned in your local shops. But despite this, the new game Spysnatcher will no doubt be a jolly

good ruse. It is loosely based on Peter Wright's controversial book and involves stealing various papers from an office block. However, when we approached Topologika, we found that the project was shrouded in secrecy. Our mole was able to tell us that it is due for release sometime in the autumn. And it will be partnered with another program - yet to be revealed. Even the price remains a mystery. Still, they've probably signed the Official Games Act!



Could you be the next Spycatcher?

## ALADDIN'S SAVE

Aladdink have just announced a special introductory offer, open to all 8000 Plus readers. Until the end of July they will re-ink as many ribbons as you can muster, for £1.50 each. But this offer only applies to your first order, so gather together as many as you can! For more details Aladdink can be contacted on (08907) 50965.

## WINNING WORDS

Well done to all the entrants of our crossword competition. We were inundated with post, a sure sign that the prize - a copy of Locofile - is something that many of you have taken a fancy to. The winners should be well on their way to unrivalled efficiency, with the help of Locomotive Software's database program.

Congratulations to Janet Wilcock from Mousehole in Cornwall, Mr J.Davies from Brighlon and T.F.Merrett from Biggleswade. Well done!

**And, for those of you who got stuck - here is the correct version**



# NEWS

## THE PCW OVERSEAS

The PCW is a truly international beast. We regularly hear from readers based on the continent - and even further afield - and from their User Clubs. This month was no exception, with a despatch coming in from the two-year old JOYCE-Computerclub. The club is based in Germany, but draws its membership (over a hundred strong) from all over the area, including Switzerland and Belgium.

The JOYCE-Computerclub offers a wide range of help, advice and support. The most recent edition of the bi-monthly newsletter ran to over 60 pages and includes news and adverts, as well as hints and tips, articles, listings, a Public Domain section and many other goodies.

Because of the wide geographical spread of the club, the newsletter has to be the main means of communication between members; however, last year a meeting near Bonn attracted around 25 members, and more get-togethers are planned in the future.

Anybody who wants further information - in German! - should contact the JOYCE-Computerclub, c/o Kay Uwe Berghof, Roseggerstr. 5, D 5600 Wuppertal 2 (West Germany).

Meanwhile, and still not quite on terra firma, Kate Quilliam would like to start a club on the Isle of Man. She gives PCW tuition; her brother sells computers. Sounds like the ideal set-up! Manx PCWers can contact Kate at Upper Ballagrick Farm, Sanlon, Isle of Man.

## NEW AND BOOMING

It's good to see that a mention in 8000 Plus can have such startling results. Back in March, we gave the addresses of a couple of gents wanting to start clubs - one in Wales, one in Essex. With a great deal of hard work, both clubs have now opened for business.

But they are always open to new members. The club in Basildon, Essex, for instance, have already held a couple of meetings, and have had a great response. But...it could be better. So anyone down there around Southend and Chelmsford - get in touch with Jim French on (0268) 415255.

In Wales, the Aberdare group now boasts a name - the "HEADS of the VALLEYS PCW User Group" - which definitely rates a mention as the most attractive name for a new club. They meet on the first Friday of each month in Aberdare itself, and their contact is Roy Underwood, on 0685 874972.

## ROOM FOR GROWTH

Even the larger, more established groups are always looking for new members and ideas. These groups can usually offer informative talks - the Teesside Group, for instance, will meet on May 13th, for

'an evening discovering the utilities of CP/M'. The Hereford group, as mentioned in last month's news, also have an exciting program of talks. In addition, they will can now offer a bookshop service, although catalogues will only be available at meetings. What better reason for joining?

The CP/M and MSDOS User's Group, one of the clubs aimed at the more advanced user and programmer, have had a change of contact address. If you think that this is your cup of tea (we might add at this point that their current newsletter is full of hints, tips, assembler routines, memory maps and other tempting goodies) then contact Dave Nesbitt at The CP/M and MSDOS Users' Group, 11 Haslemere Road, Windsor, Berkshire SL4 5ET.

## IN HOPE...

We have addressed this problem before, but it is worth appealing again. Mr Nesbitt (no, not the same one as in the CP/M Users' Club above) lives on the East Coast of Scotland. Yes, there is the ScotWest Group, he says, but that is on the other side of the country. So he would like a club near his own home, and is prepared to start one up. He is Bob Nesbitt, his phone number is (056) 72 773. He has already spoken to Scotwest themselves, and the two groups look like making the PCW presence fell in earnest north of the border.

At the other end of the country, Mrs Rymell would like to start a club in South Somerset. Contact her at Lyewater Farmhouse, Lyewater, Crewkerne, Somerset TA18 8BB (0460) 72509 if you are interested.

## RIP

Sadly, though, not all news is good news. Just before we go to press news has reached us of the demise of the Retford PCW Users Group. Paul Tew, who had been running the group, has moved on to pastures new, and nobody has been found who is willing to take on the challenge. Very sad, as the membership had reached the healthy figure of 25.

## NEW LIFE

Hopelully, though, that will be the last bit of bad news that we have to bring you.

Always on the look out for glad club tidings, Club News can be alerted at 30 Monmouth Street, Bath, BA1 2BW. Information on new clubs, news on people looking for clubs, of people wishing to form clubs, and of the activities of established clubs - all are most welcome.

Any contributions must be sent in to Club News early in the month preceding cover date please. In the meantime, happy clubbing!



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# Eighth Wonder

*Can the PCW really think about eight things all at the same time?*

*Karen Donaghay catches up with Flipper 3*

**K**rishna, that well-known Hindu deity, is blessed with several pairs of arms – a happy state of being, and one that does much to make him the envy of overworked people everywhere. An extra pair of hands would often be a godsend in these modern, frantic times.

Well, sorry, we can't supply any add-on limbs but there is a program that could endow your PCW with a similar status. Cast your mind back to those times when you have wished fervently for a whole fleet of PCWs, rather than just the one. Or those times when having to do more than one thing at once becomes almost a necessity.

Imagine for instance that you are in the office, writing a letter, when the telephone rings. No problem. You leave your document in Edit mode and pick up the phone. It turns out to be an irate customer making – horror of horrors – a long distance call. After calming him down in your most diplomatic way, you realise that his query can only be answered by delving into the dark recesses of a Supercalc spreadsheet.

But, try telling him that you need to save your letter in LocoScript before you can boot up CP/M. And then, oh dear, you can't find your Supercalc disc – and where did you put that customer account file? By the time you return to your caller, he is likely to be breathing fire and brimstone down the telephone line.

This is just one situation where Flipper could help. There are many, many others. Whenever you need to leave something momentarily, then Flipper, and only Flipper, can help you.

## From old to new

When Flipper 2 came out it was a PCW revolution all by itself. You could have LocoScript set up on one side, and Supercalc set up on the flip side. The transition, or the 'flip', could be made in less than a second and you would never cease to be astonished at the efficiency. In effect it was like having two machines sitting side by side on your desk.

But PCW users are a demanding breed. Having discovered the joys of two environments, they wanted more. Why there couldn't be three? Or even four?

Why not indeed? There was nothing within the basic principles of Flipper that prevented this. And so Software Imperative have decided to end the debate for once and for all. In a massive revamp of the original program, they have finally come up with Flipper 3 –



and although it is still named Flipper almost everything else has changed.

Several things instantly strike you. The first revelation comes when you put the disc into the drive. It is self-booting. The second surprise is that once Flipper is set up, it relies on just two pull-down menus for every action you will ever want to carry out – and the choices available allow the user to be more demanding than ever before.

But by far the most obvious benefit is that the new Flipper offers no less than eight environments. This feature alone would be enough to make it worth looking at as a sound investment, even if you already have Flipper 2.

## Split personality

So, for those who are not "flipping" experts, what does this really mean? Well, Flipper 2 allowed you to have two completely different PCW set-ups. And we do mean complete.

One second the PCW could be hard at work in CP/M calculating the interest

on a loan. The next second it could be back in a LocoScript letter, advising your Aunt Mildred on the best possible peat to use on her gardenias.

To switch from one environment to another means using a keypress sequence that would, under normal conditions, reboot the machine – [SHIFT][EXTRA][EXIT].

When you flip back, you will revisit LocoScript or CP/M in exactly the same state as you left it. It is a little like walking through a PCW time warp. The letter to Aunt Mildred is picked up mid-sentence. Or, if you left your spreadsheet in the middle of a calculation you can return to it and just carry on as though nothing had happened.

So if Flipper 3 is based on the same principles as Flipper 2 then it follows that it should be a replica of the situation described above, except with eight different environments rather than two.

Yet, as always, it is not quite as simple as it sounds. We set out to discover more...

## Thanks for the memory!

If you want to expand your memory power then there are several ways to do it. SCA Systems' Rumpacs are probably the easiest way to do the business. The Rumpac comes in three sizes: 512K, 768K and 1.5Mb. Prices are respectively £113.85, £136.85 and £228.85 (including VAT) and they can be obtained directly from SCA by calling (0903) 700288. Other good news for SCA is that Flipper 3 is compatible with their Vortex hard disc – although the same is not true of the equally popular Diamond hard disc from Cirtech.



# THE STARTING POINT

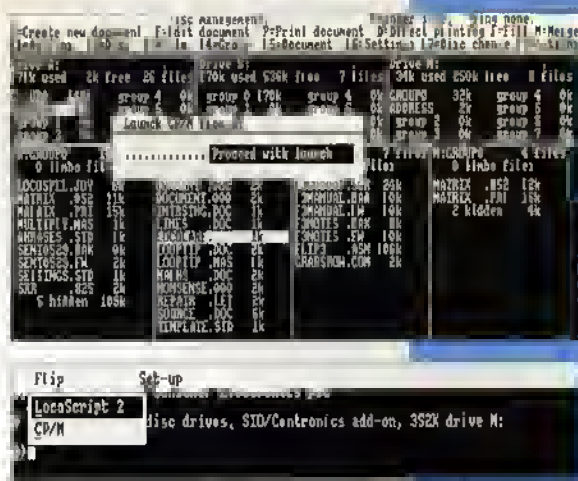
Flipper 3 doesn't believe in wasting time. Throw a copy into the A drive, and it goes straight into action. This is an important point to notice, since its predecessor Flipper 2 forced one to load CP/M first and – even worse – remember the list of Flipper options.

In contrast, Flipper 3 automatically prompts you to set up LocoScript on one side, CP/M on the other and can then flip on demand, with all the expertise of a ten-year old Russian gymnast.

Your sole contribution to this happy state of affairs is to produce a LocoScript disc when you are prompted to, and later a CP/M disc. Thereafter, you can flip between the two by pressing [SHIFT][EXTRA][EXIT].

The second screen shot illustrates just how easy this is. Press the key sequence [SHIFT][EXTRA][EXIT] at any time and a menu appears with two options shown: LocoScript and CP/M. The underlined letter is the 'hot key' – it's rather like a shorthand code. Pressing either L or C will catapult you into the environment of your choice. Or you can move the highlighted bar down to the desired line and just press [RETURN].

**Top:** Flipper goes to work, Launching a CP/M environment. All you have to do is provide the start of day disc and press [RETURN]  
**Right:** After Launching LocoScript and CP/M – the choice is yours



# MORE ABOUT MENUS

This is all well and good, but what about other possibilities? We told you earlier that Flipper could provide up to eight environments and here we are extolling the virtues of a mere two.

The simplest menu is the one that allows you to flip from one environment to another, obtained by pressing [SHIFT][EXTRA][EXIT], as we have just seen. But, to get the most out of Flipper you need to get to grips with the other, more complicated, menu.

Changing Flipper's set-up is designed to be a simple process and it achieves this goal admirably. The set-up can be changed quickly and effectively from the aptly-named Set-up menu. This displays a whole range of opportunities that at first sight seem rather overwhelming (see the screenshot).

But, bear in mind that Flipper is one of a kind, and so these choices are all unique to Flipper and are bound to seem unfamiliar. With constant use they quickly become second nature.

Again, scrolling down the list allows you to choose an option. Or, a quicker method is to press one of the underlined letters. For example to 'Trash' an environment completely press [T]. This destroys the current environment, and returns all memory to a pool.

The major achievement of Flipper is that you can then do with this memory what you will: dividing it between LocoScript and CP/M in endless permutations. There are rules to this game as you do not, in reality, have endless supplies of memory to play with. But more about that later.

The key to utilising this extra

memory is the Launch option. Without this, there would be no Flipper 3. It is where all of the advantages come together to give an exhilarating sense of freedom. Not only can you 'Launch' whatever you like into the remaining memory, but it can take up as much, or as little space, as you choose.

You could do something silly like Trash everything and then Launch as many games of ping-pong as can possibly fit on to one PCW and flip very quickly from one to another. Or you could Launch something useful like LocoScript, followed by a database and a word count program.

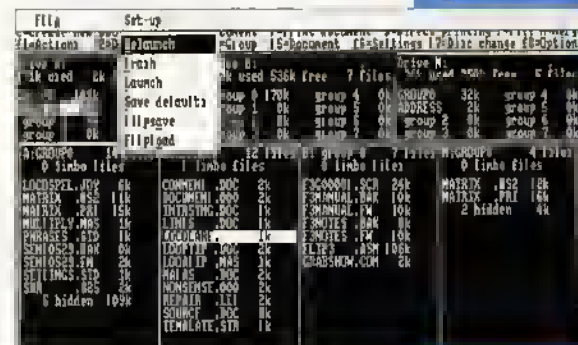
Despite the myriad of options, Flipper needs very little information to Launch a new environment. You need to give the new environment a name, such as Spreadsheet, and you also have to tell Flipper how big it should be.

For those who don't like to dabble in bytes, there are options to use up 'All' of the remaining memory or 'Half' the remaining memory. Alternatively, there is the option to tell Flipper the exact size in either kilobytes or blocks (a block equals 16K). If you take a quick look at the screenshot on the following page, you can see this menu in action.

Whatever you choose to do, once you have sized up your prospective environment and given it a suitable name, you then simply press [RETURN], use your CP/M or LocoScript boot-up disc and that's it.

The newly-created territory will then be treated in the usual way.

Of course, once an environment has been Launched it will remain there until



Flipper can also set up "made to measure" environments. Everything you need to do such a thing is provided on this clearly presented, easy-to-use menu

such time as you decide to Trash it. So the next time you press [SHIFT][EXTRA][EXIT] it will appear in the list of underlined options.

And this isn't the only option in the Flipper bag of tricks. Others include Relaunch – designed to help you over those difficult launching problems. If, for example you have launched an environment using an ordinary LocoScript disc – when what you really wanted was LocoScript and LocoFile, then Relaunch can save time by allowing you to reboot, using a different disc, into the same pool of space.

And then there is Flipsave, Flipload and Save Defaults. These are the design tools. They should allow you to install Flipper so that it completely fits your needs, and then reproduce that set-up whenever you use Flipper. And the easier that process is, the more useful Flipper is likely to be.

# Endangered species

Many people consider LocoScript 1 to be one of the last existing dinosaurs on the planet. Flipper 3 does nothing to disprove this theory; it is more to add to the list of applications that will only talk to LocoScript 2

# ON YOUR OWN

This is where the fun starts, and also where you have to put your thinking cap on. Assuming you have trashed absolutely everything and you are starting from scratch, what do you need from your PCW?

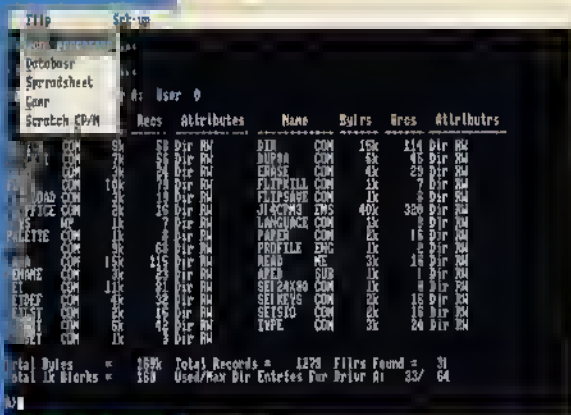
If you use LocoScript and a spreadsheet on a daily basis these would be good ones to have. One more

environment could then be left free for any other program that you want to use.

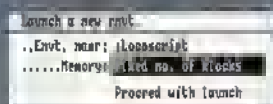
Or, if you are trying to learn to touch type, then setting up a touch typing tutor, plus LocoScript and maybe a word-counter would be useful. Then you can flip over from LocoScript to count the number of words in your document. And once an hour you can take a break from

the serious work and have yet another re-run of The Quick Brown Fox Jumps Over The Lazy Dog

This all sounds very easy: just take your pick of set-ups and then Launch it. The bad news is that most machines won't be able to cope with three different environments because they don't have enough memory. There is only so



Flipper 3.00 - Copyright (C)1986 Software Imperative



Top: Four options at your fingertips, using Flipper's flexible Set-up routines  
Bottom: Launching a new LocoScript environment would take up about 20 blocks

## How much?

Flipper 3 costs £34.95 and can be obtained from Software Imperative, at 11 Chapel Row, Queen Square, Bath BA1 1HN, telephone 02251 425315. If you have already got a version of Flipper, you can upgrade to Flipper 3 for a mere £10 - exceptional value, considering just how much the new program can offer you. Software Imperative are also the masterminds behind the word pre-processor Foreword, reviewed in our September 1990 issue, where it achieved the rarely-awarded rating of 20 out of 20.

much you can squeeze into a limited space. Of course this is not Flipper's fault, and it can be corrected by adding extra memory.

Anyway here are some of the ground rules. LocoScript and CP/M need a certain amount of memory just for their own purposes. Whatever's left over can be allocated to the M drive. LocoScript actually needs 12 or 13 blocks (about 200K) just to run in. But, to avoid a crash of Wall Street proportions, it will in practice need more than this. How much more depends on how you are running LocoScript.

LocoSpell takes up a colossal 10 blocks (160K) so, unless you have memory extensions on your extensions, this is not a great idea. LocoFile and LocoMail take up one block each. What's more LocoScript uses the M: drive as a temporary resting spot for large documents while you are editing.

This all adds up - and the Flipper 3 manual itself recommends allocating no less than 20 blocks for LocoScript. The good news is that if you mercilessly throw away those little LocoScript extras, such as additional printer drivers or fonts this allows you to fit it into less than 20 blocks.

Fortunately CP/M is not so fussy. It can work with as little as 12 blocks, depending on what you want to do in CP/M. Bear in mind that many CP/M based programs, just like LocoScript, need space in the M drive in which to save temporary files.

The most important point is that the standard 9512 or 8512 has only 31 blocks to play with once Flipper is installed. Given these figures, it doesn't take a Nobel prize winner in mathematics to work out that space is a bit tight. The options are either three

very small CP/Ms (not very useful), or one LocoScript plus one small CP/M, or two reasonably sized CP/Ms.

## Down Memory Lane

But take a short walk down memory lane and suddenly this picture is dramatically changed. This scrimping and saving of bytes can be avoided by a memory extension. For example, adding an extra 512K of memory leaves a generous 61K to play with.

Now you can start getting into the enviable position of having three reasonably-sized environments. It also allows more complex programs like Micro Design and Mini Office to be used with Flipper 3 (both need at least 32 blocks in which to operate).

Of course, adding more memory means extra flexibility. In theory, Flipper can allow eight different environments simultaneously. Few people need this many choices and it must be said even fewer have the memory to do it in. Four environments is probably the optimum requirement for most PCW users.

But enough about sums. They are best worked out within the comfort of your own PCW. What about all of those other little features such as FlipSave, FlipLoad and Save Defaults? Let's look at the simplest option first - Save Defaults. Remember the initial set-up of

Flipper, with the memory split evenly between LocoScript and CP/M? This default set-up is saved on to the Flipper disc and is used automatically unless the user intervenes.

To save a new default is simplicity itself. Once you have defined all of your environments, you put the Flipper disc into the drive, choose Save Defaults from the Setup menu and press [RETURN]. And that's it. Next time you switch on your PCW all you have to remember is which start of day disc is needed to boot-up each session.

This is a crucial feature of the program since arranging the set-up is a timely procedure. FlipSave and FlipLoad on the other hand could have been left out. But, it would be a sad loss for PCW users as they are undeniably impressive. They allow you to take a snapshot of the PCW as a whole: capturing your work in mid-flow. The amazing thing is that FlipSave preserves every environment on your machine, not just the one you are working on.

The result is a huge file. (It will probably take up a disc on its own.) You can then switch off your machine. When you need to restart, the FlipLoad option can drop you back into a situation identical to the one you left behind. And that, as you know, could cover an entire range of PCW programs.

## THE VERDICT

Flipper 3 is many things to many PCWs. People who already have Flipper may be considering an upgrade. Many others may be thinking about it for the first time. For newcomers, this is one program that comes with a hearty recommendation. It is easy to use and well thought out. More to the point, it is one of those programs that can quickly become indispensable.

If you already have Flipper 2 it is a more difficult decision. In a PCW with no memory upgrade, the new Flipper will still only provide two distinct environments, due to the lack of space. The question then boils down to one of convenience. Flipper 3 is far more comfortable.

For those with large memory upgrades it is a completely different kettle of fish. In the normal run of events there is only so much RAM one can use. But with Flipper 3 you can use all of the extra space to good effect. In this instance, it would be a great shame not to buy Flipper 3.

On the whole we found Flipper 3 a valuable and timely release, especially

considering how many folk these days are prepared to spend a bit of money on increasing their PCW's capacity. Your comfort is considered at every stage. We were particularly impressed with its ability to self-boot, with the easy-to-use menus and the useful extras like the relaunch option. In fact, the only thing we could possibly criticise were the rather curt error messages.

The manual is in the chatty style that exemplifies the work of Software Imperative. This makes it perfect for those who like to be gently led through a program - but not so great for those who are in a tearing hurry. Having said that the manual does actually tell you most of what you need to know - more than can be said for most. It also includes a lot of useful background material.

All in all, Flipper 3 is great value for money. It certainly bears the hallmark of success - not only is it easy to use and very handy but it is also completely without rival. No-one else has ventured into this highly specialised field and, given such stiff competition, it is not really surprising.

## Flipper 3

### Pluses

- ▲ Good documentation
- ▲ Versatile, innovative features
- ▲ Easy to get to grips with
- ▲ Extremely useful

### Minuses

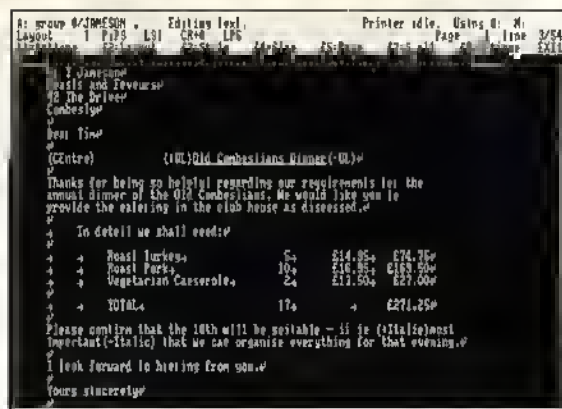
- ▼ Cannot use Flipper with LocoScript 1 or

with an unexpanded 8256

- ▼ Cryptic error messages

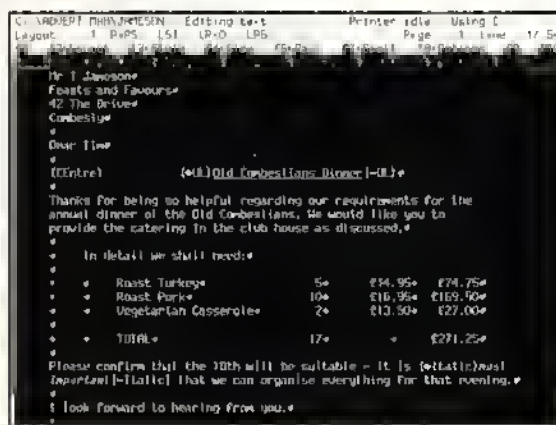
Ease of use	5/5
Documentation	5/5
Features	5/5
Performance	4/5
<b>8000 Plus Value Verdict</b>	<b>19/20</b>





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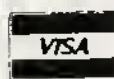
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Protext automatically enter command mode. Again, a code is the answer: code 254. So the phrase ^254^count^13^ will now activate the whole word count key sequence, with just one keystroke.

Notice that if you issue the order when already in command mode, the ^254^ command is effectively ignored, because it is unnecessary.

There are many, many more command codes which are available for you to experiment with as part of phrases. They can be found in Appendix 5 of the Protext manual, or (more comprehensively) in last month's 8000 Plus Tipoff's section, under the heading "Well phrased" (April 1991, page 69).

## Phrases of the future

The next natural step is to store your phrases to disc, so that they can be loaded back into the computer whenever necessary. There are two sorts of file that can hold this information. The first is a sort of start of day file which, if it is on your boot up disc, will be loaded automatically with the program (although it can be loaded at other times - if you change disc, for instance).

Alternatively, you can keep your phrases - especially if they are document specific - in a normal file, and load them in at the appropriate moment.

Let us examine the second of these options first. To begin with we will have to load the details of the phrases in question on to disc. Create a new file, and tap in the details of your phrases in the one line format we discussed above.

Make sure that they are surrounded by quotation marks, and make sure that there is a space between the word KEY and the letter to be 're-programmed' - as well as a space between the letter itself and the phrase.

The quotation marks you use to enclose the phrase will depend upon exactly what is in the phrase itself. If the phrase makes use of an apostrophe, then you will have to use double speech marks (") to enclose the phrase (if you were to use single marks, Protext would

get to the apostrophe, assume it was the closing speech mark, and end the phrase there). In the same way, using double speech marks within the phrase would mean that you would then need to use single speech marks to enclose it. Similar rules apply should you need a 'nested' phrase within a phrase.

Once you have written your file, with the key definitions one below each other, each starting on a new line, give it an appropriate name (it is useful, but not essential, to give it the file extension .PHR - for example, SAVE XYZWORDS.PHR). To load them into the computer, you will need to use the command 'EXEC' (or just 'X') followed by the name of the file: EXEC XYZWORDS.PHR.

The new phrases will 'overlay' any phrases which are already in memory - that is, the new set of phrases will re-define those keys which concern them but leave the other keys untouched. So, if you are careful with the structure of your phrase files, certain keys can always remain in memory, whilst others can change depending upon which phrase file you have loaded.

Because of this 'overlaying' it may happen that you get the "Phrase too long" message, and some spring cleaning may have to be done, by deleting the ones that are no longer necessary; KEY X "" will do the job.

## Clearing the backlog

Stored phrases can also contain commands. If you use Protext's utilities to do a lot of file and disc maintenance, you may find yourself regularly clearing out all your back-up files (the ones with a .BAK file extension, which Protext creates if there is room on the disc - like LocaScript's limbo files).

If so, you could assign this command as a phrase, something like: KEY E ^254^ERA \*.BAK^13^, using the codes 254 and 13 as before.

The command to copy everything in memory to disc could be KEY C ^254^COPY M:\*.A^13^. As you

develop a personal repertoire of tricks and utilities you will be able to add them to your phrase file. Loading that file and pressing [EXTRA] followed by the correct key is all that is needed to put them into effect.

The phrases or commands that you use regularly could be candidates for your start of day file. This is a normal phrase/command file. Its importance comes from the fact that Protext automatically loads and obeys the file when it loads itself into the computer. Therefore, the file must have a name that Protext will recognise. This name is 'EXFILE' - a file to be executed.

This means that it must be a file of commands. All our phrase files so far have of course been command files - with the one command, KEY, being repeated several times. So if all you want your EXFILE to do is to load phrases into memory, you can just follow the pattern that we have already established.

However, the power of this EXFILE can be fully exploited by adding other commands into it. There is a lot to be said, for instance, for putting all your Protext command files on to the M: drive. Easily done in an EXFILE: just put in a line which says COPY PROTEXT.\* M.

Using command codes you can achieve even more - how about a nice start of day message?: 125311HELLO113113113113HOW ARE YOU THIS MORNING?12541. You'll notice that the up arrows in an EXFILE command (but not in a phrase definition) become bars ([EXTRA]). The code 253 is the command to enter edit mode from command mode - the opposite to 254!

An EXFILE can be executed at any point (as long as it is on the current disc!) with by pressing [EXTRA][ENTER].

Once you start using and experimenting with files like these you will begin to see how Protext can be turned into one of the most powerful and useful text-manipulating tools the PCW can employ.

## Hints & Tips

- Although they are not always available from the keyboard, all the CP/M characters assigned numbers between 160 and 253 (the full list is in the manuals, page 113 of the CP/M section for the 8000 series, and page 547 for the 9512) can be accessed by Protext, and printed on a dot matrix printer. The way to do it is to make a phrase which refers to them as a code. For example, KEY I ^174^ will give an inverted question mark. For numbers over 191 you will also have to prefix code 159 - so that the 'not equal' sign will be KEY N ^159^222^.
- For certain codes it is possible - and easier - to use letters instead of numbers. For a start, they only need an up arrow before, and not after, the code. For instance, ^13^ (the return code) can become ^m. Another useful interchange would be from ^9^ (tab) to ^i.



The first screenshot is an EXFILE as it would look on screen, before being saved to disc. The 'KEY N' line sets up the document for NLQ printing, before quitting to command mode and issuing the print order. The code 27 takes you to the top of the document; code 24 q sets up NLQ printing; code 29 takes you to the bottom of the document, and ^254p puts you in command mode, with the p command for printing in place. All you need do is decide for or against background printing.

The final few lines of the EXFILE are an extension of the routine mentioned in the text for printing a message to screen.

Code 253 enters edit mode and 'HELLO!' is printed. Then come three carriage returns, before 'HOW ARE YOU THIS MORNING?'. 254 enters command mode.

The next command is interesting - PAUSE makes Protext wait for a key press before carrying out the next EXFILE instruction. In this case the instruction is 'CLEAR'. The command to CLEAR usually prompts the question - 'Are you sure?'. In this case, however, we have made the answer part of the EXFILE - which is what the final 'y' is doing. Our other two screenshots plot the progress of the EXFILE's execution.



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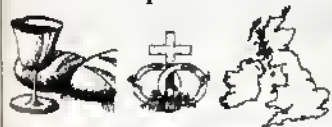
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# LOCOPLUS

Welcome to this month's LocoPlus, your essential guide to the PCW's native word processor. We're starting off with three pages of LocoScript Surgery with Liz Bruce, and then there's a round-up of some of your own hints and tips. The section concludes with part three of our LocoFile tutorial. So, let's get cracking!

## It's your turn!

If you are having trouble with LocoScript, don't despair; however small the problem seems to be, Liz Bruce can come to the rescue. Don't just restrict your queries to LocoScript, either; if there's something troubling you in LocoFile, LocoMail or LocoScript PC, we may be able to help! So, send your letters to: Liz Bruce, LocoScript Surgery, 8000 Plus, 30 Monmouth Street, Bath BA1 2BW. We're sorry, but Liz cannot enter into any personal correspondence

**Q** Dear Liz,

Having received copies of 8000 Plus from copy number one, it is not often that I am unable to find an answer to a problem. However, I am a little mystified by the following.

I recently found an une disc, with LocoScript 1, that I had no ability to move files across to the nursery at the Disc Manager Screen as the first step toward transferring them to another disc. I assumed this was a software problem on the disc and at first thought I was going to be stuck for ever, but found that by clearing the screen and reloading another disc

and then pressing [F1], I was able to reload the offending disc and move to nursery. I then cleared all the files off the 'dodgy' disc and threw it away.

I have now found exactly the same problem with another disc, but think it may be one I copied from the faulty one. Is this likely to be an occasional hardware problem on the PCW8256 which I have used fairly heavily for the last five years, or have I only compounded a problem by copying the original fault? I have not found any problem with SuperCalc 2 or STOP PRESS. Your very helpful advice please.

**A** I think this is most unlikely to be a hardware problem, as if it were it would probably not be so intermittent or restricted to one program. It is indeed likely that the fault was on the original disc and you have copied the problem on to another disc.

There is another thing it could be, though, and that's a problem with your start of day disc. Although the hardware

won't have suffered from long and hard use, the discs do. People often make one start of day disc when they get their machines and continue to use only that one disc. Obviously, that disc is used every time you load the machine and so is the hardest working of all your discs.

At the first hint of any weird problem, the first thing to try is making a new copy of your master disc and re-

loading the machine from that. If that solves the problem, throw the original start of day disc away and be grateful!

In your case, it is most likely the data disc which is at fault, so if the problem only recurs with that disc, don't worry about it.

If, though, it crops up again, try making a new start of day disc, which should put things right.

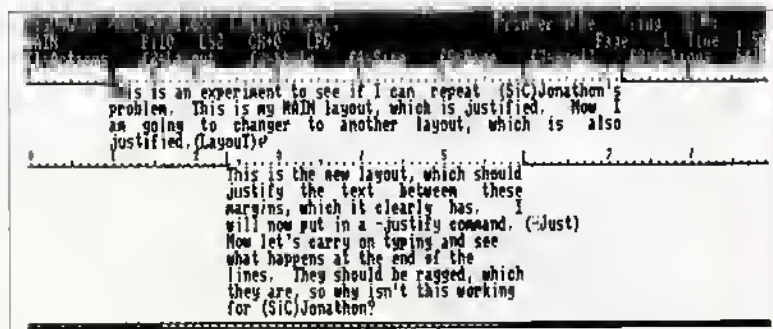
**Q** Dear Liz,

I am having a problem with justification in LocoScript v2.29. When I change the layout within a document, I cannot turn the justification off. It's like this; a layout code followed by a

[J] just simply continues to justify as if nothing has happened. This is very frustrating, because other commands (such as 'pitch' and 'er') seem to work fine after the usual layout codes. What am I doing wrong?

**A** I don't know! I've tried to repeat this problem but failed; it worked fine for me! Take a look at the screenshot, which illustrates the process of trying to discover the fault. This is my main layout, which is justified. Now I am going to change to another layout, which is also justified. This is the new layout, which should justify the text between these margins, which it clearly has. I will now put in a [-justify] command. Now let's carry on typing and see what happens at the end of the lines. They should be ragged, which they are, so why isn't this working for you?

If you look at the screen shot of this experiment, which shows the codes I entered, maybe you'll see something which will clear things up for you, but it sounds as if you've done exactly what I



did. In the meantime, you can get rid of the justification by going into the layout menu, pressing [F8] for options and taking the tick away from beside justify, or making sure this isn't ticked in the first place when you set up your new layouts. If that doesn't work either,

there's definitely something wrong with your copy of LocoScript. It's just possible you have a problem with your start of day disc, so it's worth making a new installed version from your master disc. If that doesn't work, you'd better send your master back to Locomotive.

**Q** Dear Liz,

Thank you very much for LocoScript Surgery. I find your explanations and instructions so enlightening I am finally beginning to think I might come to grips with my PCW 8256 after all!

Please can you help me with a

specific problem. I need to make up timetable grids and I can't find any way of producing a continuous vertical line. I have found the straight line on [EXTRA], and the line in the symbols, [ALT][7] but they seem to be the same and neither give a continuous line.

Also, the lines don't always line up straight on the printed page, despite the fact that they look as though they are straight on the screen.

This is an important facility to me and I'm fed up putting the lines in with a ruler. Is there an answer?





**A** You haven't missed anything - that line on [EXTRA] and the one in the symbols are identical. Your problem is caused by the fact they are only half a line high. The answer is to use a line spacing of a half and put in a line of vertical lines between each text line, which is also divided by vertical lines. I have done something very similar for a grid for a certain type of puzzle and I've shown both the screen shot including codes and the printed out result. That should make things clear.

The answer to your second problem is to use tabs to line up your vertical lines, and then they will always come out right on the page.

Lining things up on the screen then finding they don't line up when you print them out comes about for one of two reasons. Firstly, if you are using Proportionally Spaced Pitch, the gaps between the letters of each word are adjusted to make the letter 'i' take up less room than the letter 'w', for instance. The screen cannot show you that, so things may look lined up but may not be when you print out.

Secondly, even if you are using a fixed pitch such as pitch 10, it still may not work if you have justification switched on. LocoScript justifies by using 'microspacing' which means that spaces between words are no longer the same size but made bigger or smaller to give the best result. Again, the screen can't show this, and again things may look right on the screen but may seem misaligned when you print out.

The best solution is to always use tabs but if you have an unexpected and small piece of text to line up - and you don't want to set up tabs specially for that - use a fixed pitch and put in a minus Justification command and it should print out straight.

When you are trying to create a grid for a timetable, you need to ensure that the line spacing is set to a half, and that there's a line of vertical lines in between each text line...

	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						
1 1 1 1						
2 2 2 2						
3 3 3 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
4 4 4 4	4 5 6	4 5 6	4 5 6	4 5 6	4 5 6	4 5 6
5 5 5 5	7 8 9	7 8 9	7 8 9	7 8 9	7 8 9	7 8 9
6 6 6 6						
7 7 7 7						
8 8 8 8						
9 9 9 9						

...and if you use tabs to ensure that your vertical lines are correctly arranged, then you could end up with a neat timetable like the one above

Here's how to store layouts for use within direct printing in LocoScript. Go into Direct Printing; using the spacebar, take the cursor to the column until the place where you want to set your margin. Press [F8] to 'show codes'. Set the desired code. With [SHIFT] and the left arrow key, take the cursor back to the start of the line, then press [COPY] [EOL]. A highlighted bar will appear. Press [CUT] and at the prompt, press A. The margin and typesize instructions are now saved as a phrase. This phrase can be saved permanently to the program disc, using the menu under [F1] Actions. Thereafter, whenever you are using Direct Printing, you only have to paste in 'A' at the start of each line, followed by the address text, and that line is always with the typesize and margin you require. Of course, a number of different layouts can be saved in this way, and used equally well on ordinary LocoScript documents.

Alex Marwood, Drifford

**Q** Dear Liz,  
I use LocoScript 2 on my PCW8512 and tend to copy addresses from previous correspondence. Can you give information about how LocoScript's limbo works? From time to time, I have read that LocoScript indulges in 'housekeeping' and clears out older limbo files. There is

little about this state in the blue manual for LocoScript 1 and not much more in my green LocoScript manual. In correspondence, I keep unanswered letters on the current screen. As soon as an answer comes in, I place the original document into limbo from whence it should be recoverable if necessary. Am I in danger of losing valuable files?

**A** You most certainly are! Limbo was never meant to be used for storage and yes, files may suddenly and without warning disappear from it. Limbo is purely an 'emergency' utility. It is a special section of the disc put aside for the purpose but restricted in size, so it works on a 'first in, first out' basis. This means that once it has filled up, every time a new limbo file is added, the oldest one will be removed and is irretrievable.

When I am teaching people, I show them the limbo files, explain how to recover from limbo, then tell them to forget all about it until they have a disaster. It doesn't do to rely on limbo; you're erasing files from a group and just as you press [ENTER] to confirm an erase you realise it's the wrong file and, probably, one you haven't backed up. You suddenly remember limbo, and you switch on the 'show limbo' option.

If you are lucky, there will be a limbo copy which you can then recover. That is not the end of the story, though; the limbo copy will be the previous copy of the file, not the most recent. Here's why. When you edit a document, one of the options when you exit is to 'abandon edit.' If you do that, all changes or additions you have made will be gone and the document saved back on the disc will be as if you had never edited it in the first place.

Clearly, LocoScript must keep a copy of the old document until you save the new version, so it can restore the old version if you choose to abandon. It keeps that copy in limbo. Very kindly, it lets you access this so that a catastrophe with a document may not be the end of the world.

Note the following. If you have created a document, but have never

edited it, there will be no limbo copy. Secondly, if the limbo memory has filled up and the file is an old one, it will be removed from limbo and there will no longer be a limbo copy. Finally, if you have edited a file, the limbo copy is not a copy of your edit, but of the previous version. Better than nothing, but you will still have to restore all the changes you made in your last edit. I hope that this clears things up for you.

Actually, the best solution, if you have a lot of correspondents, is to get yourself a copy of LocoFile and set up one file with all your names and addresses in it. You can, if you like, keep that file on your start of day disc so it will automatically be copied to drive M and always available, whichever disc you are working with. You can paste addresses straight from LocoFile into your letter,





Dear Liz,  
Thank you for the excellent advice you give in 8000 Plus. May I suggest that when the irritating message 'Waiting for Paper' appears after the 9512 printer has been loaded, the wait-bar is not the best answer. When I first had the problem a friend told me to hit the following sequence of keys: [PTR];[F1];[ENTER];[EXIT] This is a quicker method than the 'wait-bar and rewind' method and works for any printer.

Liz replies: A few months back I dealt with the problem caused by the 9512 insisting it was 'Waiting for paper', if any changes are made on a printer menu after the paper is loaded. At the time I suggested simply pulling the bail-bar back, letting the paper wind up as if the printer is loading a new sheet, then repositioning the paper. Your solution is perfectly valid; however, there is in fact a better method yet. All you have to do is to press [PTR] then the [+/-] settings key, and this clears 'Waiting for Paper' and exits from the printer control state.



Dear Liz,

I have recently acquired a PCW9512 with LocoScript 2. Since I have had it I have been trying to replace the Phrases in the System group of the start of day disc, but so far, to no avail.

I have studied the user instructions meticulously, and tried to follow what they suggest, but I have not had any success as yet. It seems I am doing something wrong - can you help?

**A** I'm not completely clear as to what you want it is you want to do. If you simply want rid of the phrases already there, so you no longer get those which you created before, then you could simply erase that phrases file. If you are trying to set up new phrases, it's a little more complicated. When you make phrases, by copying a phrase in a document and then storing it under a letter, it is stored at that stage in the temporary memory of the machine - and your phrases will disappear when you switch the machine off.

You need to go into the disc manager screen, put the cursor in the group where you want to save those phrases and press [F1] to select 'Save phrases'. You confirm the group by pressing [ENTER] when the

confirmation message appears, and a new file called 'PHRASES.STD' will appear in that group. Next time you want access to those phrases you put the cursor on that file and press [F1] again, this time choosing 'Load phrases'.

The point of this procedure is that you can, if you wish, have a different PHRASES.STD in each group, and load them as you want them. So, for instance, you could have a set of phrases set up for doing the church magazine with the names of the people involved stored in one group, and in another group you could have a set of technical phrases, for, say, your job.

Now, you say that you want to replace the phrases on your start of day disc. If you load one of these other PHRASES.STD files, you will replace

those phrases with the new set, but the old ones will be there next time you start up, until you again load one of your own PHRASES.STD files. If you would like one set of phrases permanently available on your start of day disc, copy them from your document, insert the start of day disc and put the cursor in the group with PHRASES.STD in it. Select 'Save Phrases' then [ENTER]. You'll get an error message telling you that the file already exists, but that's OK, because you want to replace it. You could also copy a PHRASES.STD file from any other disc on in your start of day disc at any time, and those phrases will then be the 'default' phrases - i.e. the ones which are there unless you load a different PHRASES.STD file.

## GUIDED TOUR OF LOCOSCRIPT 2 - PART II

The Guided Tour continues. Remember, this is intended for people who are reasonably familiar with LocoScript already, although beginners may benefit from reading and keeping it for a later date when they are more experienced.

### [F1] FROM THE DISC MANAGEMENT SCREEN

To get here, load LocoScript, which takes you to the Disc Manager Screen. For safety's sake while experimenting, remove the start of day disc and put in a data disc, preferably one with nothing important on it. Press [F1]. The first choice on this disc often frightens people. They have no idea what will happen if they 'Make an ASCII file' of one of their documents or whether they would be able to get it back again.

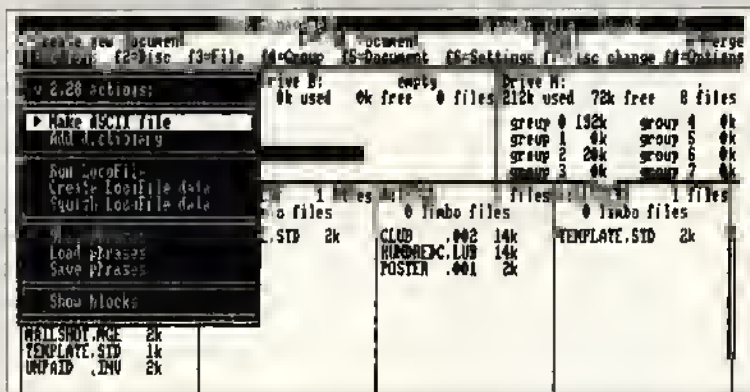
ASCII (American Standard Computer Information Interface) is a code assigned to each character, which is understandable by any other computer which also understands ASCII.

The point of this is that different programs - word processors in particular - have different ways of controlling how text is printed on the screen or by the printer, and have many special characters of their own (like LocoScript's foreign characters and symbols, for example). These are not understood by other programs.

ASCII reduces everything to a common level and will not handle these special characters, nor will it cope with word processing codes or inlaid commands.

However, it will allow the actual text of a file created under one program to be read by another.

You could use this, for instance, to convert a LocoScript word processing file to an ASCII file then persuade a Desk Top Publishing program to accept that ASCII file and process the text in cases where the DTP package would not accept a LocoScript file direct.



Pressing [F1] at the disc manager screen prompts the arrival of this menu. But what is ASCII? Where does the dictionary come from? All is revealed in this month's Guided Tour

You get a choice of whether to make an ordinary ASCII file, which preserves only the text, or a page image version, which will also preserve tabs, ends of lines and page lengths. If you choose this the ASCII version will preserve these by adding spaces, carriage returns and form feeds. This can make the resulting file very difficult to edit, though.

To go the other way and get LocoScript to accept an ASCII file, you create an empty document, select 'Insert text' (t1) put the cursor on the ASCII file and press [ENTER]. You can experiment with all this by making an ASCII file in either form from one of your own LocoScript files, then inserting it into a document. You will see the different effect of using the ordinary and page image versions, although making the ASCII file from LocoScript and then inserting it again often recovers more than you would expect, as the whole thing was done under LocoScript.

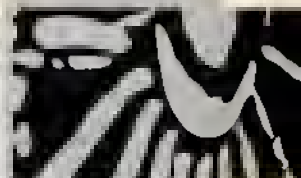
If you choose the 'Make ASCII file' option, nothing happens to the original file. You will be asked where you wish to put the ASCII copy: the original is left untouched, so you need not be afraid of selecting this by mistake.

The second choice on the [F1] menu is 'Add dictionary'. This allows you to add a dictionary which you (or someone else) has created, to your system dictionary (if you have LocoSpell installed on the start of day disc. This means that it you have built up a user dictionary during spell checking, you can add it to your main dictionary for permanent record. This means that the words will always be recognised, and not just recognised when you are in a disc or group where the user dictionary is operating.

(By the way, not a lot of people know that in later versions of LocoScript you can list a dictionary by creating a document, selecting 'Insert Text' from the [t1] menu and selecting the dictionary. The words will be listed on the screen. You can edit this list then rename the file USERSPEL.DCT. You can also select User Dictionary upkeep from the LocoSpell menu and delete any words you saved by accident)

The add dictionary also means that if you have a specific interest or profession and you know someone who has already set up a technical dictionary for that interest, you can add their specialist dictionary to yours.





# Over to You!

*Last month, we invited you to send in any genus of LocoScript advice that you could pass on to other readers. Well, the postbag has been positively packed with your helpful hints and tips, and here is just a small selection of them. Keep them coming in - and you, like Philip Shapiro of Birmingham, could win up to £25! The address to write to is: Over to You, 8000 Plus, 30 Mounmouth Street, Bath, BA1 2BW. Keep the tips short and punchy, and if you can illustrate them with a screendump, then so much the better!*

**£25 WINNER**

## Letters Begin

At the start of the day when I have a lot of letters to write, I find a useful little tip is to save the date as a Block (call it Block

"O" for example), and also to save my address and telephone number as a Block; whenever the tedious task of putting the date and my address into letters arises, I first position the cursor where the date or address and telephone number is required, then just pressing [PASTE] and the Block number saves a lot of boring typing!

Since my PCW is left on all day, blocks held in the memory can be very useful; of course, they are lost when I switch off at the end of the day, but you could save them by loading them as Phrases instead of Blocks.

I also find it useful to save a Block of the name and address of each person I am writing to, saving more typing when doing labels for their envelopes. The way I do this is, when I have finished printing out all the letters, I get into Direct Printing mode, then paste each name and address Block into each label. When I have several letters to do, I find that it pays to make a note of which Block number goes with which letter to save any confusion.

**Philip Shapiro**  
Birmingham

## Four thought

Here are four tips that might prove useful to other readers:

1. Confucious say: don't get rid of the typewriter, save it for the envelopes!
2. Copy a short story or article onto each of your discs and save it in a file called Buffer. If a 'disc full' message then appears when you try to save your work, return to the disc manager screen and erase this file. This should give you 10K to 15K of space to play with.
3. Using LocoSpell on an 8256 machine and running out of space on drive M? Forget about the upgrades and prepare your work in LocoScript, then save to disc and soft-boot LocoSpell to

spell check and print.

4. If you prefer your keyboard to be sloping, like a normal typewriter, get a plastic binder and blue-tack it to the base of the keyboard at the back. It works just as well as more expensive manufactured supports.

**Stephen Date**  
Cannock, Staffs

## Driving test

When using a PCW with a second disc drive you have to have a disc in both drives when booting up for the presence of both of them to be recognised. But in LocoScript any TEMPLATE.STD or LocoFile datafiles with the .DAT suffix will be copied automatically from both A: and B: drives on to the corresponding group of drive M: upon start up, a process that can be both time consuming and unnecessary.

To avoid it, simply put the drive B: disc in the wrong way round. The drive is recognised, but it can't be read and so no files are copied across. (This works OK for the 5 1/4" drive; I can't vouch for the second 3" drive drive!) There may be an increased risk of corrupting the disc doing this, but then we all keep back-ups, don't we?

Still on LocoScript, if you have a B: drive it's possible to have up to 24 groups in use at any one time, more if you have a hard disc. There are times when you may want to copy a file from group O of Drive A: to group 7 of Drive M: for example, and scrolling through 24 groups takes time. Either simply remove the disc from the B: drive and press [F7] ([F1] Loco 1) to reduce the amount of scrolling by however many groups there are on drive B: or do the following: place the cursor over the file you want to move, and press [F3] to copy it.

Instead of moving the cursor on to the new group in drive M:, press [ENTER] again. This brings up a menu displaying the old and new names of the file in question. Simply move the cursor on the menu down one place and type in 7 (for the new group), and then down another place and type M (for the new drive). The file will be copied

immediately without the laborious business of moving all the way across the disc manager screen. This method can be adapted to erase, move and rename files as well.

**Revd M Komor**  
South Glamorgan

## Phrased out

LocoScript's Phrases are endlessly useful, but there are drawbacks to the system. I keep four sets on different start discs for different purposes, and that's too many to memorise. With a long phrase, SHOW PHRASES lets you see only the first few words. With something centred, or right aligned, or with a phrase consisting solely of code, it shows nothing at all. And it won't SHOW CODES, so you may lose your neat way of solving some special need.

Here is a simple solution to these little problems. Create a file solely for making and storing phrases. If you call it PHRASES.REF it will sit handily above PHRASES.STD on your start disc. Make a list of your phrases:

- A For the attention of
- B Your reference:
- C Thank you for your letter of
- D I apologise for the delay in replying

and so on. When you've got them just to your liking, it's a simple job to work down the list converting them into proper Phrases but pressing [LINE], [WORD], [COPY], [EOL] (as many times as there are lines in the phrase), [COPY], then the key letter. Print out PHRASES.REF and stick it on the wall for ready reference.

Finally, remember to SAVE PHRASES (though if you forget, it's not a disaster because they're all preserved in PHRASES.REF ready to re-copy!). Of course you can SHOW CODES in PHRASES.REF if you need to. For the future, just be sure to put any additions or alterations in PHRASES.REF before copying them into Phrases so that you always have an up-to-date, complete list of what's in your PHRASES.STD  
**Christopher McCready**  
Oxford

## True origins

In your February 1991 issue, a reader suggested that with LocoScript, there is no command to let you edit an existing document and save it under another name, leaving the old version intact. Nevertheless it can easily be done with LocoScript 2. Edit the old document to the new version required and with the COPY facility put all the new text on to temporary hold as a designated block. Exit from the document making sure to use the 'Abandon edit' command and the original version is saved intact. Create a new named file in an appropriate group and transfer to it by PASTE-ing the appropriate block. Exit using 'Finish edit'.

The new version has now been created and the old version still exists!  
**Roy Bealhy**  
Cleveland



# New Order

*A database such as LocoFile can be equipped to provide you with the answers to all of your questions. Karen Donaghay shows you how*

**W**here was the photocopying engineer at 10am on the fifth of May? Was he with Claire Jones? And did her photocopier really need that extra service?

This month we show you how – with the help of LocoFile and your PCW – all these questions, and many more besides, can be answered.

Many databases are able to answer convoluted enquiries and LocoFile is no exception. The real secret is in the design of the program – and that is where you come in. With the help of a few carefully placed indexes, LocoFile can respond to queries that would appear to be beyond the range of what could be regarded as just a computerised filing cabinet.

Take the questions asked in the first paragraph. These are the kind of probing statements which may sound like the run-up to a News of the World exposé, but to a photocopying (or any other kind of) firm they would be of great importance – especially those companies who have to schedule the daily servicing and repair rounds.

If you take an ordinary customer database as the foundation, it is a very easy task to make LocoFile capable of providing a detailed schedule of which photocopiers should be serviced on each particular day.

The basis of the entire exercise is indexing. Understand this concept, and you will understand the very essence of a database such as LocoFile!

## HINTS AND TIPS

- One neat and efficient way of dividing your addresses into areas is to enter the telephone code as a separate field. This field can then be indexed numerically and you have a perfect separation between appointments in Bristol, for example (0272) and Bath (0225).
- You are allowed up to eight indexes with LocoFile – more than enough for most people. But it is worth bearing in mind that creating an index does take up some space – especially on a large file. This is one very good reason not to index everything in sight.

## STEP 1: DECIDING THE LAYOUT

If our photocopier firm wanted to provide a servicing database, it would probably look something like our example. All of the service details are on the first page. Other relevant details, such as the name and address of the customer and the type of company, could be put on a second page. However, since we are not concerned with these we have left them out altogether.

Incidentally, it is often a good idea to have the most important information on the first page (or screen) with any further details stored on a

Keep all the most important information on the first page

second screen. We will cover this issue in more detail next month.

As you can see from our screenshot each record has a space for the customer's name, the type of photocopier and the date and time of the next service. As always, there is room for extra information. This space can be used to make note of any particular problem.

These were all laid out in the normal way using the option to 'Create LocoFile' as we showed you last month. And of course, there are no indexes as yet.

## STEP 2: DEFINING THE INDEX

So what is an index in LocoFile? Well it is based on the same principle as an index in any normal file. The most common type of index is arranged in order of name (often using initials as a sub-index).

The difference here is that LocoFile can have more than one alternative for an index: one moment it can be arranged alphabetically by surname and a minute later it can be arranged in chronological order – or any other order you care to define.

To see this in action we need to take a look at the way the file is set up. Load the LocoFile in the usual way by highlighting your datafile, pressing [F1] on the Disc Management screen and choosing the option to 'Run LocoFile'.

If you have set it up to look like our example above, you should get the first record appearing on the screen.

At present, what you see is what you get. There are no indexes involved – but our aim is to change all of that. To alter the way a datafile is

Datafile set-up is the first step towards defining an index

designed you need to press [F1] for Actions and choose 'Datafile set-up' as shown in the screenshot above. Press [ENTER] and you will see that the original page design will then appear on the screen.

Let's take the simplest case first. It is almost inevitable that, at some point, you will need to find a customer by their surname; this is one of the most common ways to organise information.

so a Surname index would be a good idea. Press the option [I2] for 'Index' and select the choice to 'Create New Index'.

Press [ENTER] and you will see a list of all of the fields. Move the cursor to Surname and press [ENTER] again to choose this field.

Because this is the most straightforward type of index the default settings are perfect for what we need. A box appears on screen and the options to order this index according to the standard alphabet are already selected.

It also ignores case. This means that it will make no difference if the name is in capital or lower case letters.

Since these settings are all perfectly suited to a Surname index simply press [ENTER]. The name (Surname) and type (Alphabetical, no case) are displayed.

Scroll down to the [EXIT] option and press [ENTER] to confirm this as your first index. You can now begin to think about what the next index should be.

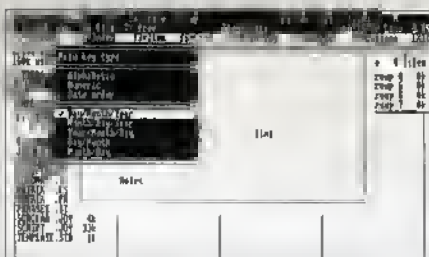


## STEP 3: INDEXING BY DATE

The next index is going to be slightly more complicated. We want to create an index that can sort the file into date order. For instance, if a customer has the service date in May, this should come before a customer who is due to have their photocopier serviced in June. To do this we need to set up an index on the Date field.

Press [F2] again and choose to 'Create New Index'. Then choose the Date field as before, by scrolling down and pressing [+]. Press [ENTER] and up come the defaults again. LocoFile assumes that this is an alphabetical index. We need to change this to a date index.

To override the default move the cursor down to Date Order and press the [+] key. Immediately a list of options shows up (see our screenshot). They seem confusing at first, but actually refer to some common methods of using



Change the default index to Date by pressing [F2] and choosing a format

and displaying dates. Often people refer to a numeric date by putting the month before the day. Some even prefer the year first, followed by the month and then the day. If you want to display the date in one of these unconventional ways, it is possible. You must choose the correct

version here by scrolling down to either Month/Day/Year or Year/Month/Day and pressing [+]. If not, LocoFile will assume that each date is entered in the normal way - (Day/Month/Year).

The other two options, Day/Month and Month/Day should only be used when the year is unimportant. For example, birthdays always fall on the same day - the actual year is superfluous, and will only confuse the sorting process.

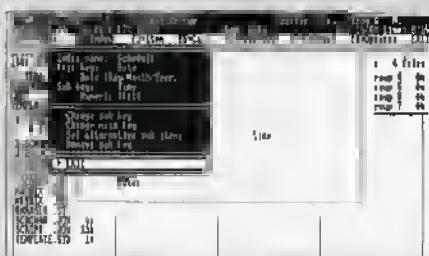
Another point to remember is that a day or a month must be represented by two figures, and not by just one. For instance, the fifth of May must be entered as 050591 and not 50591 or even 5/5/91.

In our case, we want to use the standard date format (Day/Month/Year). It should already be highlighted, so just press [ENTER] to move on to the next menu.

## STEP 4: DEFINING SUB-KEYS

Now a box will appear with the situation so far. As you can see from our screenshot, we changed the index name to Schedule. LocoFile originally sets the index name as the field name (in this case the Date). It is up to you to choose a more significant one - just delete the old name and type in a new one.

You should check that the main key is the Date and that it is ordered by Day/Month/Year. If these details are correct you can then go on to add the sub-key. The sub-key is an index within an index. To make sure that an appointment on the fifth of May at 10.00am comes before an



Defining time as a sub-key ensures that appointments are listed in the order in which they will be kept during the day

appointment at 11.00am. Time needs to be set up as a sub-index. Choose the option to Add sub key (highlighted in our screenshot) by simply scrolling down and pressing [ENTER]. Once again you are given a list of fields. Select Time, press the [+] key and then [ENTER].

This time you need to choose numeric sorting since time is going to be entered as a number. Move to the option Numeric, press [+] then [ENTER] and that's it.

The entire Schedule index is now set up to order your entries into chronological order, taking both time and date into account.

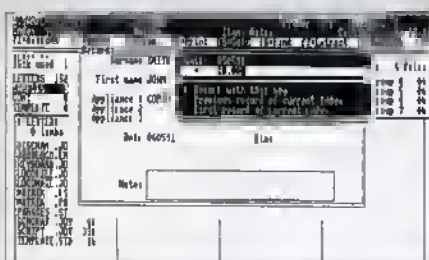
## STEP 5: USING THE SCHEDULE

Both indexes are now ready to use, and to go back to your original datafile you press [EXIT][ENTER][EXIT]. There will be a pause as LocoFile creates indexes for all of your data. The more records you have, the longer this pause will be.

Of course you can only use one index at a time. This is common sense really. If your records are sorted into Surname order they cannot be also sorted into chronological order.

Let's test out the more complicated index - Schedule. First you need to select the Schedule index. This can be done by pressing [F2] for index. A choice of indexes appears.

Three possibilities are shown: Record Number, Surname and Schedule. The first, Record number, is an ever-present index set up



The Schedule index demonstrates the true power of the system

by the program. It is actually a number given to each record when it is created and is not particularly useful as an index. Next on the list is Surname, followed Schedule. To choose the

Schedule index scroll down to that line, and press [+] to select it. Then press [ENTER] and you will be returned to your original position in the database.

It may appear that nothing has happened but if you [PAGE] forwards or backwards through your records you will see they are indeed sorted into strict chronological order.

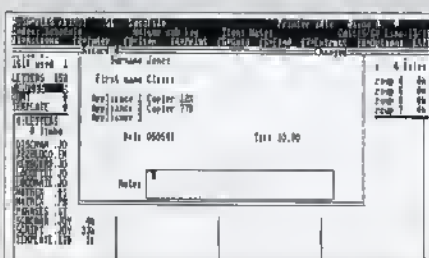
But what about our original query? Let's find out what was happening at ten o'clock on May 5th. To do this you need to choose the GoTo option by pressing [F5].

Fill in the details as shown in our screenshot. (The first line always refers to the main key - in this case the Date. The second line is the sub-key Time.) Finally press [ENTER] and LocoFile will look for a record that contains those details.

## STEP 6: EXAMINING THE DETAILS

And here the truth is plain to see. Sure enough, the engineer was due to service Claire Jones's photocopier at 10 o'clock on the 5th May. Whether this exonerates him completely, or implicates him still further is of course a matter for News of the World to investigate, and not our good selves. But it does make the point that a seemingly obscure question can be answered by a standard database.

To obtain a complete schedule of where the engineer needs to be on any given day, you simply leave out the time. For instance, instead of filling in 10.00 in the GoTo box, you would



The completed schedule provides easy to find information. The next step is to print it out - which we'll look at next month

simply enter the date. This will produce the first appointment of that day and the rest will follow in order. To use the Surname index, you would select that index and instead of filling in two lines of details, there is just one line for the surname.

There are, of course, other more elaborate ways of using Indexing - to be covered in the course of this series. But, the most obvious question that springs to mind is this. How can this schedule be produced on paper? Next month we will be looking at how to get details out of your datafile and into a LocoScript document. See you then!

# Top of the Form

*Tony Hart harnesses the statistical powers of the Mini Office spreadsheet and applies them to analysing the exam results of a class of students*

Gathering results, whether they are for your local club or for a class of students, is relatively easy. Working out actual performances – highest, lowest, average, and so on isn't difficult – but it can be quite tedious.

Applications such as these are ideal for the Mini Office spreadsheet module. All you have to do is enter the data and, within seconds, the spreadsheet does the rest, working out all the averages, statistics and results you'll ever need.

The Mini Office spreadsheet offers a variety of calculation and analysis functions. These range from the simple mathematical expression to fairly complex cell references and analysis. Included are three very powerful

statistical commands. These are 'MAX', 'MIN' and 'MEAN' which, as you might expect, calculate the Maximum, Minimum and Mean respectively of a row, column or array of cells.

For example, if in cell J1 we put the formula MAX(A1,K1), then the spreadsheet will scan the values in cells A1 to J1 and place the highest value in J1. Similarly, the formula MEAN(A1,C3) would calculate the average of the array A1,C3, i.e. cells in A1-3, B1-3 and C1-3.

Below, we've looked at how, in several easy steps, you can design a spreadsheet that will accept exam results for a small class of students – and will automatically calculate the statistics associated with the results.

## HINTS & TIPS

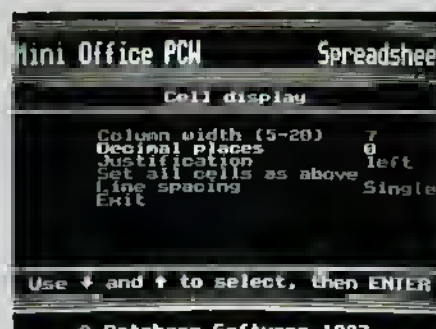
- When you're setting up a spreadsheet like this, it's wise to save it at regular intervals in case the PCW is accidentally switched off or you make a mistake. The [ALT]/I command does a 'Save and Continue' for the Mini Office spreadsheet just like LocoScript's 'Save and Continue' command in document editing mode.
- Switch on auto-update (from the 'alter spreadsheet' menu) to ensure that the spreadsheet is automatically brought up to date after each entry. If you don't do this, you must remember to update manually using [F3].

## STEP 1: PREPARING THE DISPLAY

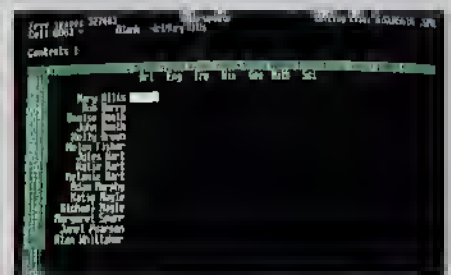
Before laying out the basic spreadsheet we can make a few easy alterations to the way the data is displayed. This is so that it becomes easier to enter – and clearer to read. First we'll remove the decimal places and set the right justification, then we'll expand the first column width to accommodate a pupil's name. All this is done within the 'Alter spreadsheet' menu as follows:-

Load the Mini Office spreadsheet

- Select 'Alter spreadsheet' - [ENTER]
- Select 'Cell display' - [ENTER]
- Select 'Decimal places' then [ENTER] key until '0' shows.
- Select 'Justification' then [ENTER] until 'Right' is shown.
- Select 'Set all cells as above?' - [ENTER].
- Answer [Y]es to 'Are you sure?' and wait until these alterations are accepted.
- [EXIT] twice back to the Spreadsheet menu.



Left: The first task is to load and 'alter' the spreadsheet. Above: Set sufficient column width to accommodate a student's name; fifteen characters should be enough



Now we'll expand the first column width to accommodate a typical name.

- Select 'Edit data' then [ENTER] and a blank spreadsheet will be presented on the screen.

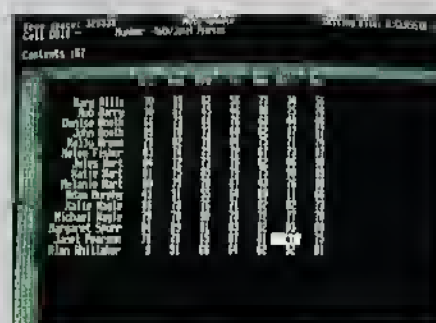
- Cursor to cell A1 - [ALT]/W
- Press the right arrow key until you have a column width of fifteen characters
- Press [RETURN].

## STEP 2: ENTERING STUDENT AND SUBJECT NAMES

The final spreadsheet will have three areas. Firstly, the first row and column that contain the student and subject names; secondly the main spreadsheet area which contains the results and thirdly the statistics area where the highs, lows and averages are calculated.

To prepare the sheet for entry of the results we first list the student names in Column A and then the subjects to be assessed in Row B.

For the sake of explanation and display, the layout we're using here is obviously smaller in pupil and subject numbers than any school class would be in real life. However it can be expanded with the minimum of fuss once the basic sheet is used and understood.



The screenshot shows the sheet after all subject results have been entered for each student

Entering the data is the easiest but most time consuming part. However, the spreadsheet has another little device which speeds up the process – the 'Automatic cursor mode'.

By using the [ALT]/A function you can make the cursor move up, down, left, right or not move at all, after entering data into a cell.

So, for this example we would probably want to enter pupil results for one subject and next we would want the cursor to drop down to the following pupil after entering the result for the current one.

To implement this, hold down the [ALT] key and hit 'A' until the indicator at the top of the screen shows 'Down'.



## STEP 3: HIGHS, LOWS AND AVERAGES FOR SUBJECTS

Using this basic spreadsheet set-up, we can now begin to work out the highest, lowest and average results for each subject (or column) and for each pupil (or row).

For these calculations we use the 'MAX' (Maximum), 'MEAN' (Average) and 'MIN' (Minimum) functions of the spreadsheet calculator. The procedure is quite simple – we put the formula into one cell then do a relative copy to all the others.

The first piece of information which we need is the subject statistics, which go at the bottom of the subject columns. These are set up as follows:

- Cursor to cell A19
- Type in "Highest mark" and press [ENTER]
- Cursor to cell B19

Once the data has been entered, the sheet will calculate the statistics for each subject. You can quite easily expand it to incorporate extra names and subjects

- Press [ALT]/F (Enter formula command)
- Type in "MAX(B3:B17)"
- This formula will place the highest value of column B into cell B19.
- Press [COPY] ; [S]ingle; Cursor to C19; [R] for Relative copy.
- Repeat the last step for cells D19 to H19
- Press [F3] to update the spreadsheet.

Repeat the above procedure for the 'Average' marks in row 20 and then again for the 'Lowest' marks in row 21.

The formula in cell B20 will be "MEAN((B3:B17)" and in cell B21, "MIN(B3:B17)".

The rest of the instructions are carried out in exactly the same as detailed above.

## STEP 4: HIGHS, LOWS AND AVERAGES FOR STUDENTS

The pupil statistics are set up in the same way, only this time the Highest, Average and Lowest values are in the columns on the right of the sheet, at the end of the pupil rows:

- Cursor to cell J1 - Type "Hi" - [ENTER]
- Cursor to cell J3 then [ALT]/F
- Enter the formula "MAX(B3:H3)" to select the highest mark
- Do a relative copy of this cell to cells J4 to J17
- Repeat the above exercise for Columns K (Av) and L (Lo) using the formulae "MEAN(B3:H3)" and "MIN(B3:H3)" respectively.

Finally, having done the subject and pupil statistics we'll do the statistics for the whole class. These will occupy the bottom right-hand corner of the sheet.

- J19 - [ALT]/F - "MAX(B3:H17)" for the class highest

The screenshot above shows the newly added student statistics, in terms of subject and individual pupil. Above right are the statistics for the whole class

- K20 - [ALT]/F - "MEAN(B3:H17)" for the class average.
- L21 - [ALT]/F - "MIN(B3:H17)" for the class lowest

These analyses and calculations are performed on all marks in columns B to H, and rows 3 to 17, i.e. on the array B3:H17.

## STEP 5: THE FINISHED SHEET

The screenshot opposite shows the finished sheet with the full results entered, with subject statistics in the rows below, student statistics in the columns to the right and class statistics in the bottom right-hand corner.

If you'd like to explore the presentation of information further, try using the cell reference function, 'CELL(col,row)' in conjunction with the row/column references, 'RMAX, CMAX' and so on. These will enable you to display individual performance information and save even more time when trying to track down individual performances. For example the formula

'CELL(1,(RMAX(B3:H17))) will return the name of the student with the highest mark of all.

A sheet such as this can provide valuable information for teachers in working out class and individual performances. It can also be useful for a parent keeping track of their children's academic progression.

And of course, you can adapt the sheet to serve the needs of your sports club or local society; any club secretary could make extensive use of such an application.

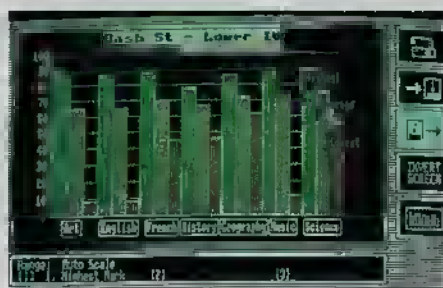
The finished sheet gives you access to important information at a glance

## WINDOWS AND GRAPHICS

There are extra features within Mini Office which can help display statistical information more clearly. The screenshot shows a bar chart that has been drawn from the statistics in the main sheet - in this case the highest, average and lowest subject marks.

The linking of the spreadsheet and graphics modules is one of the major features of an integrated suite of programs such as the Mini Office package.

In order to transfer data you need to create what is known as a 'window' on that part of the spreadsheet you wish to convert to graphics



Mini Office enables you to display information in a clear, impressive way

and then transfer this to the graphics module. Once there, it can be displayed as a bar chart, pie chart or simple line graph.

In this case, we have 'windowed' on the subject names in row 1 (Art, Eng and so on) and also on the Highest, Average and Lowest marks in rows 19, 20 and 21, and then displayed them as a bar graph. Once you have selected all the information you require for the bar graph, you need to save it as a separate file and export it to the graphics module. This process is too detailed to summarise here, but was dealt with in depth in the July 1990 issue of 8000 Plus.



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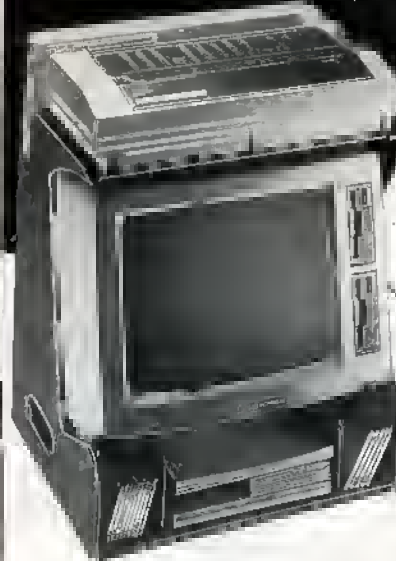
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# Fast Forward

*The ubiquitous video screen is rapidly emerging as the voice of the nineties. Yet what is going on behind the scenes? Karen Donaghay went to find out how the PCW is making its mark*

## Screen test

Not only is Peter a dab hand with the scripts, he is also a freelance director and teaches courses in video techniques. The number to ring if you want to enlist his services is (0272) 732267

## Style counsel

The fonts that Peter Carpenter put to such good use are all available from Locomotive software on one disc. They are available for the 8000 series printer and a 24 pin printer (except the latter does not include the Modern font). The price for the fonts file is £35.19 (including VAT) and the number to ring is (0306) 740606. If you fancy trying your hand at learning to touch type, the program Peter was using was the funky Two Fingers to Touch Typing Conversion Course, by Tansyst. It costs £24.95, and can be obtained by telephoning Tansyst on (071) 607 5844

If you think that being a script-writer is all glamour and showbiz scandals, then think again. Or better still, talk to Peter Carpenter. He is a freelance writer and director with a distinctly down-to-earth approach.

"Writing is a pain," he told us, suppressing a smile. "A horrible, horrible way to earn a living." Ah well, we've all heard of writer's block but is it really as bad as all that? "It's like laying an egg," he explained with a chuckle. "The only real satisfaction is when it's all finished."

We can only conclude that Peter now spends most of his life in a state of creative pain. He has successfully carved a niche in the world of script writing, and in doing so has entered a profession where closet doors are the name of the game. But then Peter was a determined man right from the start – when he bought his PCW.

It was a symbolic moment. The PCW was to help him fulfil a lifelong ambition: he had always wanted to write a film but until then lacked the time or the means to do so. "Without the PCW it would be impossible," he said. "Script-writing on a typewriter is so tedious and time-consuming that I would never have finished." As it was, the project was completed in one month and ironically is still gathering dust in a drawer. The PCW, however, went on to become a vital part of his new career.

"I was looking for a chance to work in film or video," he told us. Peter already an experienced user of a Super-8 video camera, and this, combined with his unflagging enthusiasm, was enough to land him his first offer – the chance to make a video for a museum. The budget was minuscule, but the film was a success. He had finally found his way in.

The next step was to make other small videos, to give him the background that he needed to approach a major video company. Much to his surprise they actually gave him a job – writing and researching scripts – and as his career took a shift towards writing, his PCW became more useful than ever before.

## First impressions

Peter relies on his PCW right from the word go. The moment he hears of a new video, he starts to make notes in LocoScript. Training and promotional videos are common requests, and the scripts which accompany them require the inclusion of a great deal of factual information.



"I make notes on anything and everything," said Peter. Any vague ideas for a storyline are put down. He makes copious notes on the prints that he has to cover. After a period of intensive research, he prints out all of his notes and then, with these by his side, starts to write the treatment.

"The treatment is what sells the idea," Peter told us. "In a short space of time, you need to tell a story and give people a clear impression of what the video would be like to watch."

It may sound easy, but this can be the most painful part of the whole process. Sometimes inspiration strikes. "At other times," said Peter, "I have to rack my brains. In the end you just lash yourself to the PCW and start writing."

Budgeting requirements are also floating around in his mind at this time. How many days of shooting will there be? Could the video be dramatised? Is the information going to be presented via a voiceover or an interview?

It's a lot to take into account and we wondered how Peter ever managed to make any decisions. "In the end I concentrate on the audience," he explained. "I try to focus on what they need to know."

If the treatment is accepted then Peter can begin work on the script. Often his original treatment can be adapted to form the basis of his first draft. "I sometimes take blocks and paste them straight into the script," he explained.

Although he no longer believes in using one standard form for his scripts, Peter does have strong views on how it should look. "On first sight it needs to be well laid-out and easy to understand," he said. This of course is where his choice of machine comes into its own.

"When you are using the PCW to write scripts you need to use it to the maximum. Once you have mastered it – and it does take time – then you are saved the hassle factor."

In his quest to understand LocoScript, Peter left no stone unturned. Templates, fonts and linkies are all at his disposal and his scripts have the mark of a true devotee.

"When I first invested in the PCW, I started seeing it everywhere," he told us. "I'd look at someone else's work and instantly recognise it as a LocoScript document. Then I would want to know what type of fonts they were using."

Peter is now a fonts expert and uses Finesse for most of his scripts. "It has an



attractively chunky look and makes a script seem rather more elegant," he said. But this wasn't all.

"Modern I use for invoicing because it is business-like. I use Standard font for my letters and Definite I find perfect for labels – but don't ask me why. Capital I use quite often for teaching materials when I need big, bold letters."

Peter has a strong dislike of pitch 12. "It is far too small for most types of printing," he complained. He prefers to use the more assertive pitch 10.

## Tapping resources

It is the finishing touch to a highly personalised look. Yet there is one area where Peter is lacking. Oddly enough he admits to having virtually no typing ability – a confession that is confirmed by the tell-tell signs of coloured stickers on his PCW keyboard. They reveal that he is at an advanced stage of the Two Fingers to Touch Typing course, although he describes his recent attempts – using the little fingers – as "agonising".

Since he is a far from accomplished typist, he is eternally grateful to LocoScript. Not only did it rescue him from the frustrations of re-typing and Tippex, but it also removed him from a far greater horror – his own handwriting.

"I actually think I will lose the ability to write by hand quite soon," he quipped. "My handwriting is so bad that its only use is as a secret code that nobody else can crack."

Peter is particularly grateful for LocoScript's ability to handle phrases.

"Having phrases is wonderful when you are writing a script," he revealed. "You have to write names down over and over again. And then they have to be in capital letters in the middle of the page, and underlined. Imagine having to do that on a typewriter for the hundredth time. It would be so laborious"

Instead, he can create a stored phrase for each character's name – so, for instance, storing the name Peter under 'P' only requires him to press [PASTE] [P] and the name is summoned to the appropriate place in the text.

"It's wonderful," he enthused. "The name pops up in the middle of the screen, in capitals and underlined – it is perfect every time".

Such clever use of LocoScript actually allows him to be a better and faster writer. Or as Peter put it, "instead of the boring repetitive parts of writing, I can concentrate on the creative side – getting ideas down before I lose them." This can only be good news for Peter, and good news for the end result.

Even so, preparing the script is still a long way from the filming stage. Peter often re-writes it several times before releasing it. It is then left to the mercy of his video-matic peers.

"Everybody thinks they are a writer. You are the writer but the producer is a writer as well. The director is a writer and sometimes even the cameraman is a writer." Usually, the script is left more or less in its original form and Peter has the satisfaction of seeing his work produced by a whole team of professionals.



Peter Carpenter preparing a script for a training video. "The only real satisfaction is when it's all finished."

"It's an odd feeling of power. When the script is finished, all these people come together: directors, actors, producers, lighting people, sound-recorders, cameramen and mixers. They all make the video in a certain way because that is what you decided."

Encouraged by his success in the video world, Peter is now planning another marathon for his PCW. Feature film number two is in the pipeline and we wish him every success.

Who knows? The next box-office smash may be written in LocoScript Finesse, pitch size ten!

## CANDID CAMERA

A typical video for Peter Carpenter is one that promotes a range of products. Peter cited one such case: the product in question was designed to re-paint cars and the company sales-force were slightly bemused by the entire range.

Peter's task was to explain the products to them by writing a short video script. He told us more.

"Initially, I talked it over with the producer, and we came up with the idea of using a suit of armour as a metaphor. I wasn't completely happy with this and on the way home, I suddenly had another idea.

"I pictured the video as a sort of comedy drama. The producer approved the idea, and the

initial treatment was written very quickly. The basic idea was to make the audience laugh at their own lack of knowledge, and so the storyline is based on a complete twit who has just driven his car into a bollard.

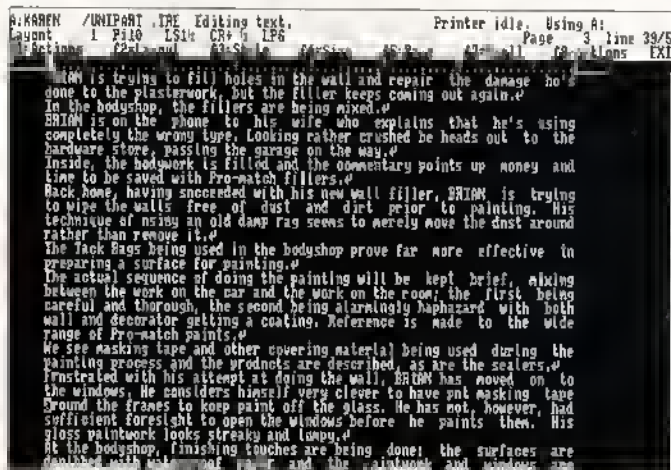
"He leaves it at a garage to be repainted and meanwhile goes home to redecorate a room in his house. I began to look for parallels. The car is sanded down. At the same time he is sanding down his woodwork. A primer is used in both cases and so on.

"The video cuts between the two scenes, except he is the kind of person who does everything wrong. He uses the wrong kind of filler

and wonders why it keeps falling out. Meanwhile, the car is being painted by an expert.

"Decorating at home is something people can relate to and so this is a simple way of helping people to understand what each product is for. Also it means that, rather than a stream of facts, there are regular breaks – something funny that reinforces the point. This is not a new idea, but it does work.

"Television is not an ideal medium for factual information because the viewer can't skim back and double check something. If you want people to understand and remember, then you need to tell them at least twice in different ways."



The treatment is a blueprint of the final script. The telephone scene, shown in the photograph opposite, is first described here. The treatment took Peter one and a half days to write



The layout of the final script is designed for clarity and is chosen from Peter's collection of templates. The script itself took four days to write

# BOOK LOOK

## PICTURE PROCESSING ON THE AMSTRAD PCW 8256/8512 by Robert Gilmore

£12.95 (Disc £29.95 extra) • Sigma Press • 1, South Oak Lane, Wilmslow, Cheshire • ISBN 1850 58237 8

**VERDICT:** A fascinating book on PCW graphics, which will appeal to beginners and experienced programmers

There is a commonly held belief that you can't 'do' graphics on the PCW. This book sets out to shatter that belief.

For a start, it is quite obviously possible to 'do' graphics on the PCW. Games and DTP packages use them as a vital part of their operations. They may not always be fast, but they are there.

The real problem with graphics is programming them. Most professional programs produce their graphics using machine code. But the average BASIC pundit has neither the time nor the skill to devote to such antics.

Surprisingly enough, though, there is an alternative, and it is an alternative that is available to every person who owns a PCW. GSX, the Graphics System eXtension, lurks in your CP/M discs (side 4 of the 8000, and the 9000 master disc). It can easily be incorporated into your everyday BASIC.COM file as an extension, and then called up whenever necessary to provide pictures.

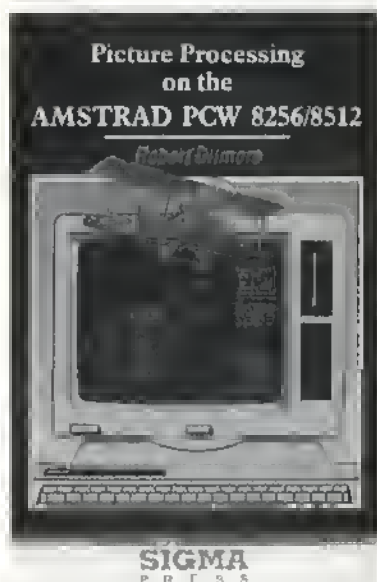
But it is a rather convoluted system, and in view of this it is little wonder that GSX has been largely ignored. 'Picture Processing on the Amstrad 8256/8512', however, aims to change all this. Starting from the basics, it progresses through concepts and techniques, examining and overcoming problems as it does so. In the end, with the use of the author's own separately available DRAWMON program, you will find yourself producing some very impressive 3D designs.

But before we can run, we must learn to walk. The book falls into two parts, and it is only after we have been introduced to the way GSX works in the first part that we can move on to DRAWMON itself.

### Graphic interlude

Firstly we are introduced to a short history of PCW graphics, and then to GSX itself, with a summary of how to load it into the computer and a discussion of its main areas of operation. This can get a little technical, with lots of new jargon being bandied about; but it is worth sticking with — the ideas become much easier when put into practice.

And of course, the best way of putting them into practice is in programs. Not every GSX application needs a controlling program the size of DRAWMON, and the first half of the book offers a large number of smaller type-in programs which will produce increas-



The mysteries of GSX explained in, er, graphic detail...

ingly more complex pictures. This has the by-product of introducing BASIC.

For programmers of all levels, this should prove interesting. The programs are easy to follow, but at the same time, tackle some important problems. Both beginners and the more advanced will benefit from studying them. Quite apart from anything else, the type-in part of the book is an insight into the workings of the PCW, and is a valuable asset from that point of view. But it also carries out its main objective, and produces a handy means of making simple drawings and of plotting some very convincing graphs. So even if you do not wish to lay out money on buying the DRAWMON disc, the book will almost certainly have proved its worth.

But by now you will probably be intrigued, at the very least, to find out what this program which you've been building up to can actually achieve. You'll also have been spurred on by the picture of a hi-plane seen in 3D from several different angles, and by the magnificent representation of a cathedral, hidden away in the middle of the book.

And so you will move on to the second half of the book. This is basically a tutorial for the DRAWMON program, along with its sister, PRINTPIC (the easily forgotten, but still vital, printer driver part of the package), although it does

also contain some discussion of how and why the program is as it is.

This is because the program does have its flaws. When dealing with large amounts of information, which has to go through myriad calculations, the process is slow, and there is always the remote possibility of a crash.

Entering information is not easy, either. Most DTP and graphics packages let you enter your information using the cursor as a pencil — put it down and draw a line. DRAWMON, however, can't do this — it uses its cursor as a pointer. The data has to be fed in in terms of the co-ordinates themselves, either freehand or by alerting the computer to the current cursor position.

This will mean, especially when entering information for a 3D drawing, that you will have had to think through your design carefully beforehand.

On the plus side, the program will allow you (and the book explains how) to do many of the things that other graphics packages allow. Most notable is the library facility, in which small sections which are likely to be of use at a later date can be stored.

### Error warning

There are a few warnings which should be issued with the book, however. The first is that there are a number of printing errors. The manual for the DRAWMON disc comes with a list of errata, amendments to be made to account for updates in the program.

But there is no mention of the errors in the type-in listings (REM lines which actually include lines of program, file names being incorrectly given), or of the fact that some of the illustrations seem to have become transposed.

Another quibble concerns the way the book and disc are distributed — some people may well feel that it is a little incongruous that the book and the disc have to be bought separately. Would not a combined package have been better?

This book will appeal most to those who have an interest in programming. Those who want to produce the occasional complex picture — for design, engineering, architectural or whatever reasons — will also find the book of use. One beauty of the system for somebody who knows about computer programming is that the code itself is very accessible, and clearly written — easily amended to fit a given requirement.

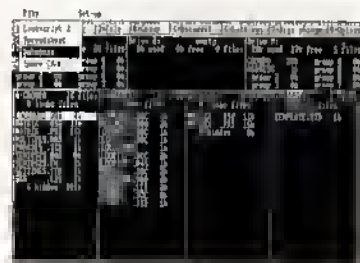
But one set of people who will be excluded from the full benefits of the DRAWMON system are PCW9512 owners. They suffer, not only from the daisywheel printer, but also from the paradoxical fact that the more advanced GSX system supplied with their computer will not leave enough room for the package to work. More advanced, then, is not always better!



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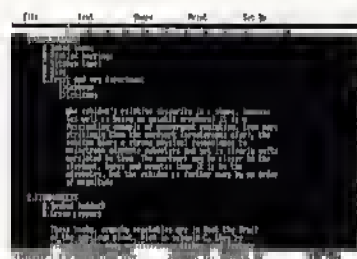
Above all, Flipper 3 is easy to use. There's a menu system to make things simple, and a thorough manual to keep them that way. Even installing Flipper 3 is easy: it comes on a self-booting disk which you can back up and use immediately.

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Flipper 3 and Foreword both require at least 512K of memory: to use the programs together, or with non-legal CP/M programs like Mini Office and MicroDesign II, extra memory is essential. Both programs support current versions of Locoscript 2 - v2.16 or later - and all versions of CP/M. Hard drives, non-standard disk formats and foreign-language keyboards may cause problems - please check before ordering.

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# Match Maker

*Apparently it all started with notches carved on to a stick. Now cricket scoring has moved to the computer. Martin Le Poidevin investigates.*



**Scorecard**  
**Sticky Dog Software**  
 46 Avondale Rd, Bath BA1 3EG  
 £19.95 (£14.95 without  
 Scoring chart)

The start of the cricket season resurrects many traditional sounds of the English countryside. The crack of leather on willow, the quiet splosh of ball in village pond, the gentle susurruration of munching cucumber sandwiches (crusts removed) – all these are familiar to men and women up and down the leafy glades of the British Isles.

So too is the clink of glasses in the village pub once stumps have been drawn. And that is when the talk begins:

"I tell you I scored 142, including 27 sixes over the church roof."

"No you didn't. You got a duck in every innings. It's on my computer."

What's this? A computer at a cricket match? One can see the very pavilion at Lords quaking at the thought.

Until now, the only computers which had been anywhere near a cricket match were the ones that produce complicated graphics on your TV screens. But with the arrival of Sticky Dog Software's Scorecard program, it could just be that the PCW will itself become a cliché of English cricket, to rank alongside white flannels and rain clouds.

The program is designed to take the complexity out of cricket scoring at all levels – from the village green to the Test Match – producing fast and accurate results. Easier said than done, because just as the game of cricket is renowned worldwide for its incomprehensibility, so its sub-arts of tea-making and scoring are also imbued with a high degree of mystique. A cricket scorebook, fully completed, does a fair imitation of a computer program.

So it is appropriate that it should be transferred to that medium, in a form that is neat, professional and above all extremely usable.

Scorecard does just about everything that is asked of a scorebook: analyses of batsmen's innings, ball-by-ball accounts of the bowlers' performance, fall of wicket and end of over scores, and much more besides – including, in the top price version, a facility for charting each scoring shot. But all this is achieved at no cost to accessibility. A knowledge of how cricket works is of course essential,

but you don't need to know all the fine details of the rules, nor the myriad conventions of scoring.

The basic display is easy to read, with the batting team given a box of its own on the left of the screen (with a summary of individual scores and the running total); below them is the summary of the bowling. Above the bowlers comes the all important 'status' box, which is where all the current information is recorded.

## Results service

Entering the result of a standard ball could not be simpler. If no run results, simply press the space bar, and a dot will appear in the box. If a run results, enter the correct number – up to 9. That in itself is an indication of the thoroughness of the program. 9 runs are possible (if unlikely) off one ball, given several overthrows and other mishaps. Entering any of these will automatically update the whole scoresheet.

It may happen that the result of a particular ball is a wicket. In a scorebook this requires much to-ing and fro-ing around the page. Two keystrokes, however, are all that Scorecard usually requires. "O" – for "Out" (real scorers will know that it should be "W" for "Wicket", but Scorecard reserves "W" for "Wide") indicates that a wicket has fallen, and calls up a sub-menu with the main means of dismissal on it.

Now pressing "B" for "Bowled" or "C" for "Caught" will tell the computer all it needs to know. And if it should happen that your batsmen should have fallen prey to a more exotic means of dismissal – handling the ball or obstructing the field, for instance – these options are available on a second menu. Again, the whole scoresheet will be thoroughly updated.

And that means more than just the main screen. For there are two other screens stored within the program, both accessible at any time from through the function buttons. These give deeper analysis of both the batting and bowling figures. [F1] summons the story of the batting displaying the traditional details of each scoring shot, and totalling the number of balls faced, the number of boundaries scored, and the details of fifties and hundreds.

The bowling screen (under [F3]) is where the full 'dot analysis' is stored. Its presentation on screen is not quite the same as in a scorebook, being rows of dots rather than rectangles, but the effect is, if anything, clearer. Only one

## It's a gift!

If Scorecard sounds like the program for you, why not enter this month's competition on page 90? We've got three copies of the program just waiting to be won!



The main screen of the program is easy to read, giving the up-to-the-minute details that you would hear in a live commentary



howler's statistics can be shown at any time. A limitation, perhaps, but nothing too disastrous.

Cricket scoring, especially at the village green level, is all too often a matter of dealing with very uncertain facts. This makes its two most powerful features all the more important – the 'Undo' and 'Alter' facilities. With the 'Undo' option you can go all the way back to the start of the innings, unravelling everything as you do so.

In practice, you are unlikely to have to go that far, since everything you 'Undo' is lost; however, it may well be useful to be able to move back a couple of balls in the over, to change something (perhaps you missed the umpire's signal of a leg bye). The 'Undo' facility can also be used rather cleverly to lengthen an over if the umpire has miscounted!

'Alter' is just as useful – especially when you are unsure of the identity of player. Much easier to leave that space blank and come back to it later when you have ascertained the gentleman's name. Easily done using 'Alter'.

The same situation may arise when a new bowler begins a spell. Scorecard will give any new bowler or batsman a number (eg, batsman 4, bowler 3) when they appear for the first time. It is possible to change this at any point, again with the result that the whole scoresheet will be updated.

## Playing by the rules

To do all this the computer must achieve something that few human beings have achieved – it must understand the rules of cricket. Luckily, it understands them very well. It knows, for instance, that no balls and wides are now added to the bowler's tally, as well as to the Extras column; it knows that an over cannot be split between two bowlers, and so will not allow you to do it; it knows that batsmen sometimes end up at the 'wrong' ends (in 'run short' situations, as well as during run out and catch dramas); and it knows all about batsmen who had retired hurt coming back and resuming their innings.

Scorecard can easily cope with all these, and seems to have the flexibility built in to get round all those other unlikely cases which have not yet arisen, even if you do have to resort to a little of what the manual calls 'jiggery-pokery' to get the required result.

Not that this is of any use on a computer. You have to be able to print it out in one way or another. On the native PCW printer (8000 and 9000 series – 9512 owners would do well to consider a 17 pitch print wheel, although this is not essential) this is no problem. [f5] will give a menu of printing options, allowing you to produce various complexities of output. Because of the regular saving of data an innings is stored on disc and can be printed out at any time.

The program, however, does not support any other printers. Is this a handicap? No, not really, because Scorecard intentionally produces files that can be read by word processors such as LocoScript and Protext. Not only does this mean that you can export your file

ENGLAND vs. REST OF THE WORLD XI  
played at BEAUFORT COURT on 1ST APRIL 1991

### ENGLAND

1 G GOOCH	obstructing	6	2112/ 10 balls
2 M AHERTON	ct Short b Asbrass	0	/
3 M LE POIDEVIN	not out	114	41616121412431432114424161412214542221/ 1641 72 balls (+1nb) 11 fours 5 sixes 50; 38 balls (+1nb) 100; 65 balls (+1nb)
4 D GOWER	b Au Verre	3	12/ 1 balls

A printout from Scorecard, showing the more detailed batting analysis. Everything which would normally appear in a scorer's book is there, including the runs scored with each scoring shot. But why the England selectors haven't picked that number 3 yet is quite beyond us!

far tidying up in a word processor, before printing it out through the printer in the normal way; it also means that you can include the scorecard in, say, a match report for your local club.

There is only one part of Scorecard that the 9000 series printer cannot cope with – the scoring chart. For this reason the program is available in two versions – one with and one without the scoring chart option. But before 9512 owners throw up their hands in despair and prepare to go without, they might like to know that even without the extension (which serves to convert the data into graphics codes that can be read by any Epson compatible printer) the position of each shot can be recorded, the information stored, and printed out when a dot matrix printer (and the Scoresheet extension!) are available.

A powerful program, then, but there are a few quibbles. Scorecard is a good example of 'vertical' software; in other words, there is nothing else you can use it for besides scoring cricket matches (for instance table-top cricket, or versions using dice or letters).

Within the confines of cricket, one obvious omission is the lack of 'Timings', either manual or automatic (scorebooks usually record the time at which innings began and ended). Finally, there is the problem that at

### REST OF THE WORLD XI – Bowling

ASBRASS 7 overs, 0 maidens, 2 for 47  
6.71 runs per over

1	2	3	4	5	6	7
..2	6..1	2..	4..1	..1	64..	1..
..1W	..1E	12..	W..	14..	..2	11..
1-3	1-17	1-22	2-27	2-32	2-44	2-47

AU VERRE 4.5 overs, 0 maidens, 1 for 28  
1 no ball 5.79 runs per over

1	2	3	4	5
14..	..1	..41	..1	64..
11..	1..	W..	..2	1..
2				
0-8	0-9	1-14	1-17	1-28

Despite the modern technology, the best way of representing the bowlers' performance is still deemed to be the 'dot ball' in a square box. A 9512 will produce a similar output

present each innings is viewed as a single entity. There is no means of collecting and collating the information from more than one innings to provide, for instance, a season's averages. On the other hand, the files that Scorecard produces are clearly structured, and could be manipulated using BASIC.

Despite this, the program could see your side quickly scoring its way into the computer age. We just wonder what Dr WG Grace would have made of it all. Or did he have a PCW hidden in his beard?

## Hints & Tips

Scorecard produces files which can easily be loaded into your word processor. This gives you the ability to do several things: the scorecard can be loaded into a word processor to be adjusted or corrected, and then printed, or it can be merged into another file as part of a report. It will also run as a Flipper environment. So you can have Scorecard in one environment, and your word processor in the other, writing the match report, or the club magazine, or just catching up on your correspondence. One word of caution – don't try to set up your master disc while using Flipper. Setting up the master involves a lot of copying to the M: drive, and if Flipper is installed there simply won't be enough room (Flipper 3 excepted!).

## HAVE YOU GOT THE POWER?

One obvious question is how to get the power to your PCW in the score box. If you're not able to plate the plug normally used for the tea kettle, perhaps you could consider using a car battery.

Surprisingly enough, it is possible to run a computer from a battery. You'll need something to modulate the current, of course, and for this an 'Inverter' is ideal. Sedge Systems in Taunton are among those who can supply you with one. Their inverter costs approximately

£110 plus VAT. They can be contacted at The Old Squire, North Curry, Taunton TA3 6LX, telephone (0823) 490198 (fax 0823 491026). John Driver of Sedge will also be very happy to talk to anyone who's interested. Just watch out for those rain showers!

And if you're into having everything automated, it shouldn't be too difficult to link the computer up to an electronic scoreboard – if you have the expertise that is – please don't ask how!

## SCORECARD

### Pluses

- ▲ Fast, powerful and efficient
- ▲ Understands the rules of cricket
- ▲ Easily readable output
- ▲ Files can be imported into your favourite word processor
- ▲ Score chart option gives interesting factual output

### Minuses

- ▼ Only applies to cricket!
  - ▼ No aggregates or season averages
- Range of features 4/5  
Documentation 5/5  
Ease of use 5/5  
Performance 5/5  
8000 Plus Value Verdict 19/20

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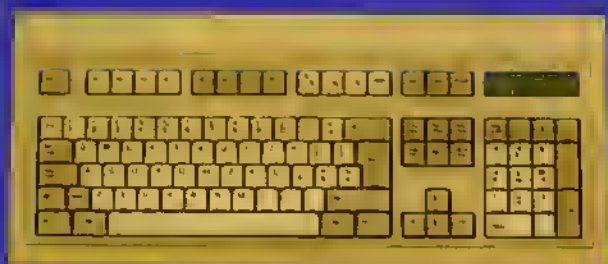
**STOP**

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**RETURN**

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# Head Start

*Incorporating impressive text headings into your documents couldn't be simpler with Headings Omnibus. Brian Holley investigates*

## Headings Omnibus

£11.95

ORB SYSTEMS, 125 Algernon Road, London SE13 7AP

Users of LocoScript can now benefit from a text utility that, for the last couple of years, has only been available to Protext users.

Headings Omnibus produces high quality headlines in two different pitches and several fonts. Its original and somewhat obscure title was ps-Headings, the "ps" being from a Protext command which loaded it. The new version is called Headings Omnibus, because anyone can use it - even WordStar and NewWord users.

Orb Systems have dared to produce a commercial program in Mallard BASIC which makes it a little slow. However, the program does a good job, it is flexible, and it comes with an impressive manual - even though it is on disc.

### Font-astic!

Headings Omnibus produces large type headings. These can be left or right justified, or centred and underlined. Two sizes of character are available and the program comes with two pre-defined fonts, ALGOR and ORBED ('old' and 'rounded' respectively).

The advantage of Headings Omnibus over previous versions is that it is now possible to create fonts. These can be saved in a file and used again and again in the creation of headings. Headings can be placed very accurately in the page using micro-spacing techniques. Fortunately users are protected from the mathematics concerned and have merely to respond to screen prompts.

Experts may become very frustrated by the more basic instructions such as "Switch the machine on if it isn't on already". However, by getting down to this level Jonathan Baylis of Orb has ensured that the most novice user should be able to cope.

A lot of the instructions are aimed at the LocoScript user, so those using other systems will need to translate. Unfortunately, in this first edition there are several places where it is not made clear whether the instructions refer to LocoScript menus or Headings Omnibus menus. This seems to be the kind of programming glitch likely to be ironed out well before the finished version is released on to the market - which will be at the time of going to press. The master disc supplied is copy-

protected which means that you have to create a working disc from within Mallard BASIC. There are two systems, depending on whether you are running a single disc drive PCW8256 or double disc drive 8512. There are no instructions for 9512 owners.

You can create a file on a double disc drive 8526 without difficulty. It is suggested that if a large enough hard drive is available, the program should be run from there. Copying can be done by using the CP/M utility PIP.COM or by choosing the 'Run from Drive M' menu option within Headings Omnibus.

Entering the heading itself is a very straightforward matter of responding to screen prompts. For some reason, additional information needed to interpret the prompt is given above the prompt rather than below it. This is baffling at first and definitely needs to be changed.

The prompts enable you to choose a font (double or quadruple height), set the micro-spacing between letters, set the default length ruler, input the drive to which the heading file will be saved, decide the centre point on the page and how far down the page the heading should be printed. With the latter measurement, users can opt for the top or bottom of the heading.

Once the position and characteristics of the heading have been defined the Text Editor enables it to be defined row by row, up to nine rows long. Press [EXTRA][P] and a file is created. Everything is now ready for printing.

On choosing the 'Print' option from the main menu, the system gathers its information through screen prompts. All the way through, default settings are pre-defined and these can be accepted by simply pressing [RETURN].

### Opting in

The Print option allows you to select bold, triple strike and underlining effects. The latter can be in one of several thicknesses, and the distance between the underline and the characters can be varied. However, with underline, *all* lines in the heading will be underlined. It is not possible to be selective. The blackness of emboldened triple strike is impressive, even with a fabric ribbon.

There seems to be a little confusion between pitch and fonts in the manual. The two built-in fonts, Algor and Orbed, can be produced compressed or wide, double height or quadruple height. Creating an original font or editing an existing one is



Use the text editor to define the characteristics of the heading...

## HEADINGS OMNIBUS from ORB SYSTEMS

...and produce a quadrupled sized orbed font - a heading which stands out from crowd!

very easy, if a little time-consuming. Time-consuming from the computer point of view rather than the user, since some file creation operations can take nearly ten minutes.

Font editing takes place in any word processor capable of creating an ASCII file. It consists of placing capital O's to form characters in the shape you require. These are used by Headings Omnibus to create a program file which generates the characters when printing a heading.

Headings Omnibus is a cheap and cheerful font editing facility for those who don't want to get into the complexities of desk top publishing. It can be a bit slow, and swapping to and from word processor to the program is a little frustrating.

However, once the fonts have been designed, and the heading formats established, the system will prove to be of great value to those needing a quick, simple and cheap method of text presentation.

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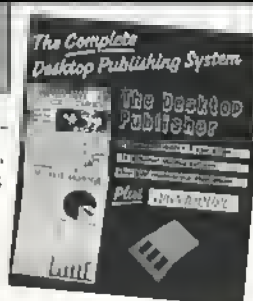
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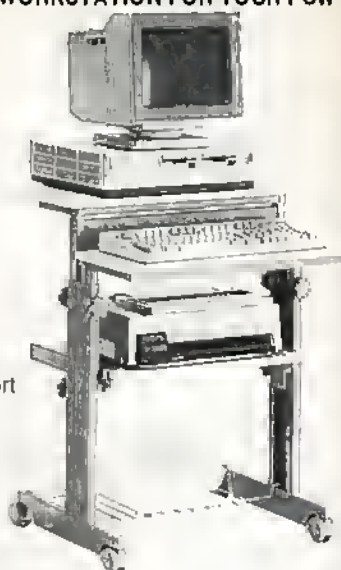


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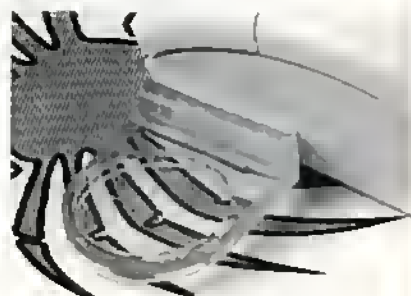
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# Designer Page

*Designing the layout of a page for a newsletter needs plenty of careful planning – but you don't have to be Picasso to do it successfully. Alec Rae shows you how to develop your creative flair with Micro Design 2*

**T**here are two ways of producing a newsletter page from MicroDesign 2. The easy way and the interesting way. And everything hinges on one setting – the mysterious Autoflow.

Hidden away in the Format sub-menu of Typesetting, there is little to suggest how useful this particular feature can actually be.

Autoflow is common in many desktop publishing packages. It is, basically, the ability to 'flow' text around graphics, without over-writing them.

At its simplest it allows you to fill pages with the minimum of effort. Just pick the number of columns you want, place the graphics, set Autoflow in Auto-Skip and let it do the rest.

It will start filling the page from the point where you place the cursor to the end of the page (or to the end of the story, whichever comes first), filling each column in turn.

While this is supremely simple it does make a page a little predictable. It means that you really have to start in the top left hand corner and head in stories, one after another to the end of the page.

If you look at a newspaper page, however, you will see that stories are placed with precision. The position and the size of the heading combine to direct the reader's eye in what the editor considers to be the most important stories. This is not possible if you are using this simple method of heading text.

But it is not immediately obvious how to design a page in the way that a normal newspaper is designed. That is until you discover the power of the Pause mode in Autoflow.

## Pause on experience

All this does is every time you come to a piece of graphics, instead of jumping to the next available space, it pauses. This allows you to place the cursor (and therefore place the text) exactly where you want it to go.

Immediately, all sorts of things become possible. For instance, look at any normal newspaper page. You will see that far from the design running from the top left hand corner, most newspaper designers work from the bottom up.

Pages start with small stories being slotted in to the bottom corners of the page. For a single column story this is no problem. You can run it in to the top of the column complete and then use Copy in the Design section to move the whole

thing to the bottom of the page. But a story spread evenly over two or three columns at the bottom of a page is impossible without Pause mode.

No matter where you start the text it will always jump to the top of the next column if you are using Autoskip (or with Autoflow off). But with pause you can start the flow, say, three inches from

with the column setting turned off and then [P]aint out the box in the Design section using white ink. Switch the column setting back on, and set the text in columns below using the Pause mode.

If you line it up carefully you can have an extremely effective double column introduction.

The method can even be used to

## CAN THIS BE JUSTIFIED?

One important decision to make when planning any newsletter page is whether text should be Justified or Left-Align

Justified is the style normally used in newspapers where the words are spread out to fill the whole line. This is only used where you use quite narrow columns and gives the page a really 'newsy' look.

Left-Align, sometimes known as Regged Right, is the normal way you would set text. This page is set in Left-Align. Lines finish where they should

naturally, giving a 'ragged' effect to the right hand side of the column.

This should be used if you are using wide columns or no columns at all. It is often used by magazines (such as 8000 Plus for instance) to give a more varied effect to the design.

Once you have decided on what style you want you should stick to it. Mixing Justified and Left-Align on the same page can have a disconcerting – not to mention confusing – effect on the reader.

the bottom of the page. When it 'pauses' at the foot of the column you line up the cursor in the next column at the same height and start again.

## Graphic detail

The only thing you need to remember is that you need to put some sort of graphic element above the headline of these stories to stop them being overwritten. This could be no more than a line (drawn with the [L]ine feature in the Design section that you could rub out (using white ink in the [P]aint utility) or it could be a fancy box or border that will make your page look more interesting.

So when you are heading in the text in the top of the page the 'flow' will run until it comes against the piece of graphics and 'pause' allowing you to set up the next column.

You can even create interesting effects at the top of the page using this feature. For instance, the classic double column introduction, so beloved of newspaper designers, is possible using Pause mode and the [B]ox facility in the Layout section. It works just as well with the [R]ectangle feature in Design as you are Typesetting in the Layout section and as you can draw boxes to any size you want ([R]ectangles can't be bigger than the size of the Design window).

You simply fill the box with text

create boxes anywhere in the page. These boxes (much loved in 8000 Plus) can very effectively break up a page and make a long article much easier to read.

Always remember the useful ability in MicroDesign 2 to UNDO the text. This means that if at first you don't succeed in getting the story to fit you can try and try until you get fed up.

## Make your mark

Also the Mark Text feature, which allows you to edit text to fit the space exactly is invaluable. Page design is often like a jigsaw puzzle, with the hard work of getting all the stories to fit in the space available.

The simple way of doing this is to adjust the number of words. If your story is short you can simply type in more, using the [W]rite feature. If it is too long (and that happens more often than not) you have the ability to re-write the text left to cut it to size.

It is an unspoken rule in newspapers and magazines that you should write every story with all the most interesting bits at the beginning and all the bits which could be cut out towards the end.

This means that when a story is too long all you need do is cut off the correct number of paragraphs at the end, making sure that the sense of the article is still preserved. Of course, life is never quite as easy as this, but it is something worth bearing in mind.

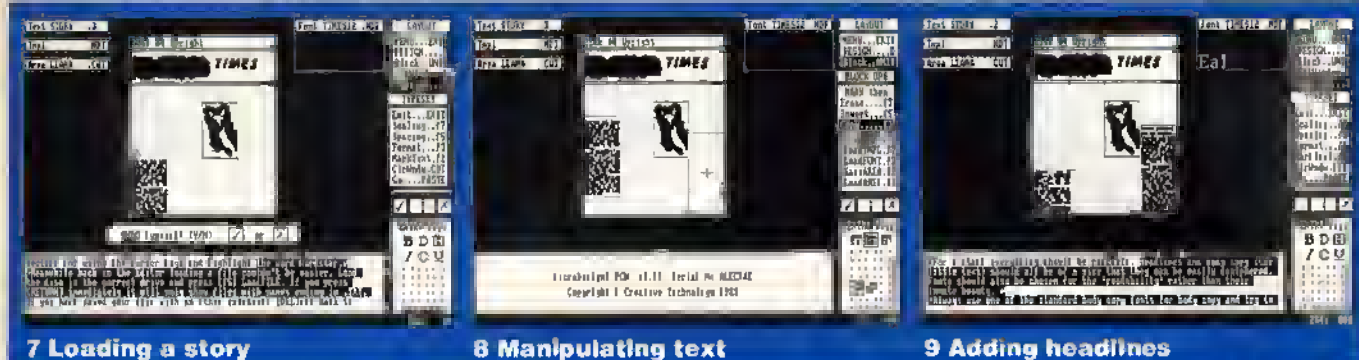
### 3 Placing the text

Move the cursor to the end of the paragraph and press [·]. The reversed section should now only cover the bit between the two markers.

## 6 Choosing a typeface

This same menu also allows you to choose the setting for the miraculous Autoflow. As we are being planning to be adventurous you will definitely want the setting at Pause





Now to load your first story. Press [T] for Typeset. The column markers should appear. Usually, you would dump it in the column you intend it to end up in - in this case, the furthest right.

But in this example we have placed a picture just to the side of it, which might make it difficult to move the story around the page later on.

Instead, place the cursor (a reversed L shaped object) near the top of the first column and press [PASTE]. The text that you worked on in the text editor will then continue to load until it is finished.

If you reach the bottom of the page before you have finished the text (whatever is left over will appear in reverse text in the bottom window) UNDO it, and start again higher up.

To do this, click on the cross situated above the EXTRA keys box or alternatively, press [WORD]. Press [Y] to confirm and away it goes, ready to be loaded again another time.

With the text fully loaded it is now time to move it around the page until it is in its correct position. [UNIT] brings up that old favourite - the Block OPs. Adjust the adjustable box around the text and press [F3] for Copy.

You can then move this text anywhere you want to around this page. Of course, there are obvious pitfalls. You will want to place it properly inside a column and you will certainly want it to line up with the other text on the page so that it looks presentable.

This is why we have used this method for a piece of text that is going in the bottom right hand corner of the page.

It is so much easier to line things up here when you can call upon the base and the side lines as guides or rulers.

If you find you are still slightly off you can always line it up later using the Copy function in the Design section - where you will be able to position things a great deal more carefully.

Go Into Design ([EXIT] and [D]) and add the headline with [W]rite. For a one column story, the font size mustn't be too big, or else it will look clumsy - but load a bigger font if you want.

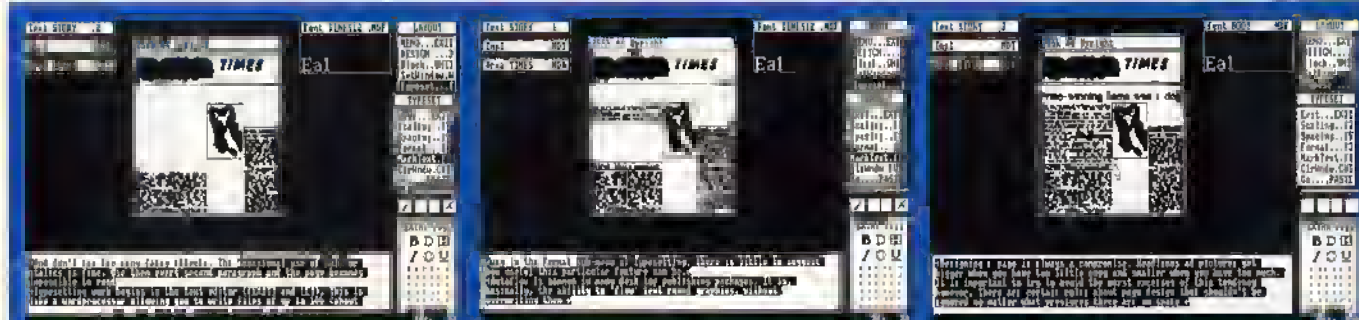
Remember to load your body copy font again before loading the next story.

Draw a line above the heading (using the [L]ine command), so that any stories added later will not overwrite your hard work. Save what you've done in an .MDA file in Layout, if things do happen to go wrong you won't need to start right from scratch again.

In the text editor ([EXIT] and [E]) load another small story as before. Mark up the text and go straight back to Layout.

This time, go to the first column on the left, place the cursor leaving enough space for what you think will be half the text and press [PASTE].

At the bottom of the column, the text will Pause. Line up the cursor in the second column and Go again.



## 10 Making the copy fit

You'll be lucky if it fits exactly. You could keep UNDOing and trying again but life is too short. Instead take the knife to your priceless prose.

If you're short it's easy. Go into Design ([EXIT] and [D]), choose [W]rite, switch the column markers on ([EXTRA] and the downward cursor key) and type away until the space is filled.

If you are over you will see what text is left, highlighted in the bottom window. Pressing [RELAY] will allow you to get into the bottom window and make the necessary changes.

You could delete the words you didn't want or adjust the end of the block by moving the cursor to the correct point and pressing [ALT] and [F]. Undo the last section of text and try out various combinations. Eventually you'll come up with the right number of words.

Again use [W]rite in Design to add the headline and protect it with a [L]ine or a box [S]hapes and [R]ectangle.

## 11 Using double columns

Now for the double column introduction. Obviously this is best suited to announce a long story, so load your lead - or main - story in the text editor and make the first paragraph bold ([ALT] and [B]).

Back in Layout ([EXIT] and [L]) use the [B]ox command to draw a box the right size. You may have to try this out a few times, checking in Setwindow to see if you are right. The precise depth of the box is just a matter of taste.

When you are finished, go into Setwindow again and change the column setting to one.

Then place the cursor in the top left hand corner of the box and [PASTE]. The box will completely fill with text and pause when it's full.

And as you probably won't want a big, black box around your introduction, go into Design and use the [P]aint with white ink facility (accessible using [EXIT] and the downward cursor key) to remove the offending line.

## 12 Completing the page

As soon as you are back in Layout remember to set the columns back to four again in Setwindow.

Then it is simply a matter of filling in the spaces in the correct order. Every time the flow of text comes to a piece of graphics it will pause to let you reposition the cursor.

With a longer story you may want to use a crosshead or two - those little headings that newspapers (and 8000 Plus) put in every four or five paragraphs. You can add these in the text editor or you can add them later using [W]rite.

This time, if you have a substantial amount of text left over you can use the old 'Continued on page 33' trick. Adjust the text to leave one line at the end of the last column and add CONTINUED DN... in bold or italics.

Save this page using SaveAREA, clear it with [C]learpage and start on the continuation page by loading the rest of your story.



# RSC

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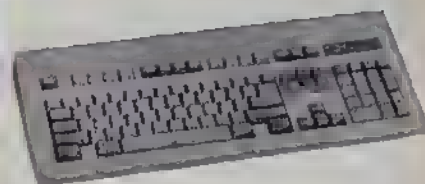
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# Figure it Out!

*Managing the accounts, whether household or business, is a task that your PCW will relish. Tim Smith looks at some useful software*

**W**hether you think the present situation is a blip on an otherwise smooth economic horizon, or a potential recession leading to a depression and the ultimate collapse of western civilisation, there is one thing which is true: money is an all-important subject. However, all this means nothing to a PCW. Given the correct software, your machine can handle the tedious figuring out of anything from home accounts to business finance with an objective mind and a cool head.

Accounts packages are not the most amiable software programs to get to grips with for the average user. They conjure up images of green visored accountants, or more likely, sharp suited young men and women with unfeasibly complicated calculators.

Good quality accounts software will ideally take the edge from your accounting. Unlike spreadsheets, which are free-form in as much as you provide the structure and the raw data, accounts programs are more formalised. Many of them bear a striking resemblance to a conventional ledger book, or even a bank statement. The reason for this is simple: the more familiar a program looks, the easier it tends to be for the user to understand and operate.

So if they are so familiar, why do you need one? One reason is that ledger books, slips of paper, and scattered statements take up a great deal of space, and are easy to misplace. Secondly, you can produce some reasonably smart printed reports at the critical year-end accounting sessions, or whenever you need them. Thirdly, your PCW is ideal for number handling. As long as you give it the correct data, it can make life

### HINTS AND TIPS

**Seeing is believing**  
You will be entering quite a bit of data if you are to make proper use of an accounts package, and bank statements will be a major source of this information. Many banks now offer large print statements for sight-impaired customers. Why not find out if your bank will provide you with this facility ... prevention is often better than cure.

**Secret service**  
Remember that it is possible to guard your files against prying eyes. Method one is to lock them away in a safe. Method two is to use SET.COM on your CP/M disc to password protect the data files which make up your accounts. This

may be a long winded process as you have to remember to 'unlock' the files every time you want to use them (this can be done in the form of a profile.sub file) but it should keep your data secure.

**Safety first**  
No matter how boring it might seem, backing up data from an accounts package is of paramount importance. After all, you are dealing with money – your money. The last thing you want is to have put in ten months worth of work only to see one misplaced cup of Earl Grey ruining it all. Whatever the program manual tells you about backing up, make sure that you do it, and then do it again to make absolutely sure.

so much easier. There are no rubbings out, no manual re-ordering of data and no losing of vital information. Your PCW might not be the greatest games player or colour graphics workstation in the world, but it loves dealing with figures, however daunting.

All in all, the PCW and the right package for your needs can take the strain from budgeting. The 'right package', however, is an interestingly ambiguous phrase.

As with all software, you have to decide exactly what you need. Which means that there is no need to go out and spend over £100 to on a piece of software which looks like it will rearrange your financial life, make the tea and send your next door neighbour into liquidation, when all you really need is program which will keep the cheque

book and building society account figures balanced.

At the other end of the scale, there is no point in paying a miserly £10 for an accounts program if you are trying to run a small business. In this case you will need to be able to produce valid audit trails, VAT returns and all of the other elements which weigh down the average business person.

Of course, it is difficult to assess exactly which package to invest in without seeing it for yourself. You could follow the advice in the margin note ('The choice is yours...') and check the features listed against those which you are likely to need. And those needs are important when it comes to handling your own money; you should think very seriously about them before committing yourself to a specific program. ➤

## VAT's a point!

Chancellor Norman Lamont's first budget threw a lot of people off course with the shock rise in VAT. But how does that affect accounts packages which have VAT built in at 15%? In this month's News Plus, we've had a look at the implications for some of the more popular accounts packages; turn to page 5 for more details!

## The choice is yours...

As usual, we've just looked at a handful of the programs on offer in this month's Beginners' Guide. For a full run down of the best of what's currently available in the world of accounts software, turn to the Good Software Guide on page 75 of this month's issue!

## LOOK BEFORE YOU LEAP...

The three packages that we are looking at this month are not the only ones on the market by any means; they are simply used to illustrate some of the options available to you the PCW user. While your computer is ideal for this kind of work, the first point to consider before purchasing an accounts package is whether or not you are going to need one.

If you are setting up a business, and especially if you are doing so at this time, you will need such a program without a doubt. But beware; do not think that it means that you can do without a visit from a professional accountant at least once a year. There is a danger that you can be led to trust your PCW and its new piece of software too much. It is a wise idea to make use of the function offered by such a set-up, but

do make sure to get your figures checked and verified before submitting them. This means hanging on to receipts and statements – which your computer cannot do as yet.

Always make certain to check back over your saved data at least once a month, comparing your figures to bank statements and reports. Again if you have a business, make sure that at least one other member of staff knows how to use the software – you never know when you might have to be away from the business, and there are always holidays. Treat your PCW and its new accounts software as pre-accountants, a preparation to the real thing. You can never be too careful.

For the home user who is keeping track of domestic budgets, the PCW and a package such

as Check Account does provide an ideal check on your spending. Make sure to prepare your computer account methodology on paper first. An element of pre-planning will pay off in the long run. You never know, with the correct planning, it even might be possible to track back over past bank statements and receipts and find out how you could be saving money in the future.

That's the tip for this month, by the way: when using your accounts package for the first time, don't bother with new data, spend an evening going back and entering your financial information for the last three months. This exercise will not only familiarise you with the software, it will also show your spending patterns and allow you to formalise your accounting.





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# Best of Friends

*Making the physical link between the PCW and the PC is one thing - but what kind of software can you share between the two machines?*

*Alec Rae investigates the options*

Computer designers seem to take a delight in making it difficult to transfer information between computers. Those old rivals the PCW and the PC are an obvious example. Not only are the discs (or disks) they use different sizes, they are in different format. So, even if you could cram a 5.25 inch PC disk into a three inch PCW disc drive the computer still wouldn't be able to read it.

You may think this is ridiculous until you realise for PC users it is almost as difficult to transfer information between a machine with a 3.5 inch drive and one with a 5.25 inch drive.

But more and more people want to transfer information between a PC and a PCW. Last month we looked at ways of

doing this by adding an external drive to the PCW, allowing you to save data directly on to a PC disk.

But this is obviously an extreme measure. If you are only going to transfer the odd file you probably want a more economic method.

There are many more or less sophisticated methods of transferring data between PCW and PC. But, of course, for the more adventurous, there is the possibility of transferring files with no more than a cable, an RS232, the CP/M utilities disc and a strong nerve. Here is one method that should work with files of up to 64K.

But for occasional use you can get away with investing in the cost of a PCW RS232 interface and a serial interface card on the PC (most PCs have

this as standard). The RS232 is the box you stick on the expansion port on the back of your PCW to hook up to a printer or a modem. Well worth an investment of about £50 or £60.

Now go to your favourite computer accessories shop - or better still, scan the adverts in 8000 Plus - and buy a 'null modem cable'. This is a lead that has the wires crossed so that the input at one end is the output at the other.

Don't try to use a printer lead as this certainly wouldn't work - it's wired up the wrong way round. Also make sure that you buy a lead with 'female' plugs at either end. The serial lead ends in a sort of D-shaped arrangement with 25 connectors. The 'female' plug has 25 holes while the 'male' has 25 pins.

Then it is simply a matter of hooking up the two machines: fitting one end to the upper connector on the RS232 and attaching the other end to the connector on the right hand side of the base of the awaiting PC.

## Getting it together

Once the physical link has been made, you need to set about preparing the respective computers for data exchange. The first thing you have to do is set the PCW and the PC to the same setting for transfer. On the PCW you need the utility SETSIO.COM (you'll find it on your CP/M utility disc) in the A drive. Type in SETSIO 1200 H OFF, - or as we say in English - "Set the RS232 to transfer data at a rate of 120 characters per second (that's what people are talking about when they mention the dreaded baud rate) and turn Handshaking off (a method of checking between computers what is going on in the other one). The PC has to have the same setting so load MSDOS and then type MODE COM1:1200,8. This sets the number one communications port (COM1) to the same setting.

There is no magic significance in choosing a baud rate of 1200. You could set it higher or lower, just as long as you set both computers to the same baud rate. One hundred and twenty characters per second is fast enough to prevent boredom while transferring moderate-sized files and slow enough to cut down on the possibility of mistakes. You need to have the utility PIP.COM on the M drive of the PCW. Again with the correct CP/M utility disc in the drive, type PIP M:A:PIP.COM and thereafter you can use PIP at any time by just typing M:PIP. See the box on the left for the next step...

## Hi-Ho

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For the less adventurous, Hi-Ho from Advantage might well be a good choice of utility. For those who don't want either the hassle of OFF file transference or to spend a lot of money on a fully-fledged comms package, this is ideal.

You get one disc to go in the PCW and one disk for the PC (don't worry, you won't get confused). It comes with a cable, so all you need is the RS232 (assuming your PC has a serial port). All the documentation is on disc and there is a little program to present it all in a reasonably digestible form. The documentation goes into an incredible

amount of technical detail - a bit of a waste of time as this program seems to be ideal for the complete novice to computing.

The program sorts out all the nasty details about baud rates and stop bits automatically. You can change them if you need to but for the vast majority of people the major technical problem you face is whether to press [1] for Transmit or [2] for Receive. It really shouldn't take too much practice to grasp the intricacies here.

To be nit-picking, the layout of the PC and PCW versions could have been better co-ordinated but really things are so simple that you would have to work hard to get confused. We also found the PC version slightly less than robust, but at £19.95 (that price includes the cable) who can complain?

## THE INCREDIBLE JOURNEY

### From the PC

Say you want to transfer from the PC to the PCW: you need the disc with the file to be transferred in the PC drive, and a formatted disc with enough space on it in the PCW. Let's assume the filename is BORING.TXT although it can be anything you want.

On the PCW type M:PIP BORING.TXT=AUX: [E] RETURN] or "Take any information that comes through the RS232 and save it in a file called BORING.TXT. And by the way, print the whole thing up on the screen so I can see what's happening."

On the PC, type COPY BORING.TXT AUX/A [RETURN] or "Take the file BORING.TXT and put it through the serial port."

Once the file has been transferred the PCW will save it on to disc.

### From the PCW

Again put the disc with the file into the A drive and the blank or relatively empty disc in the PC.

On the PC, type COPY AUX BORING.TXT [RETURN]

or "Be ready for some interesting news through your serial port. Be sure to save all information to file."

On the PCW, type M:PIP AUX:=BORING.TXT,EOF:[E] [RETURN] or "Send the file through the RS232 until the end of the file and then stop. And print it up on the screen again so I can see what's happening."

It seems so simple when its explained like that. On the other hand there are some good little utilities to help you, such as the one described above.

First of all, you could make life easier for yourself if you own a Communications package. The most common of these, probably, will be the Comms section that comes in Mini Office suite of programs (and, incidentally, is one of the easier packages to use) but there are many more.

Although it is specifically designed to allow you to transfer files down a telephone wire using a modem, a communications package is a very easy way to access the RS232 and make sure that all the settings are correct.



Before you go to the trouble of transferring files to a PC, you may want to know the answer to an important question. What do you actually do with them once they are there?

You cannot run CP/M programs from your PCW on a PC. Well that's not strictly true. There are CP/M emulations available - bits of kit that make a PC pretend to be a PCW.

These are of limited value, however. They often have problems handling anything other than pure CP/M programs and they will not perform as well as a program written specifically for the PC.

And, of course, there are a lot of programs written for the PC to choose from. There are thousands of packages on offer, starting at a cost of just a few pounds - and ending at a good few hundred pounds.

However, a quick flick through the pages of a PC magazine will throw up a number of familiar names of software packages that many PCW owners will know. Protext, Supercalc, Dbase, Micro Design...they all have their counterparts in MS-DOS format.

There is even the friendly, old LocoScript in a PC version now developed just to appeal to PCW owners who made the break and bought a PC.

But are they all just the same as the PCW versions and, perhaps more importantly, if you transfer your files from the PCW, will you be able to load

them up in the equivalent program without any problems?

### And there's more

Well the first thing to remember is that any software on the PC should do more, more quickly than the PCW. If it didn't there wouldn't be much point in people spending all that extra money on hardware and software.

For some purposes, there is not much of a difference in the way the respective machines handle certain tasks. For instance, with word processing or for spreadsheet work there is probably not much more that a PC can do. All the basic functions are provided on the PCW and, unless you have a demanding application, the PCW can provide an effective and efficient service.

However, it is true to say that most of the programs with counterparts in CP/M go much further than you would imagine in providing features to make life easier. If time is important to you, it is certainly true that often a PC can be substantially quicker.

And if you need to handle the bigger, more complex applications, like the professional end of the desk top publishing field or really large databases, you really need the extra computing power of the bigger computer. The next question is will you be able to use data files that you have already created on computer in the other computer? Many

data files are little more than text, which can be saved in ASCII format. ASCII is that clever international code that allows letters and numbers to be read by virtually any computer.

Word processors can produce text in ASCII as well as their own format (LocoScript users can find the relevant command by pressing [F1] at the disc manager screen; users of Protext will be producing text in ASCII form automatically). This means you can, at the very least, transfer an ASCII file to any word processing package. However this would only be the words. You would lose bolds, underlines, layout marks and probably foreign accents.

Some word processors have conversion programs that allow you change a file to be loaded complete with all its markings. This is particularly true of the more sophisticated PC programs.

Similarly database files are, often, no more than a long string of text that can easily be transferred without too many problems. Spreadsheets can cause more problems, but again, the fancier PC programs often have a whole suite of conversion programs that should allow you to use a PCW file.

DTP and graphics packages obviously the biggest problem. The formats vary, and you should check carefully whether your PCW format graphic file is suitable before you start - or find a PC program that will convert it.

### Macro mania

One recent addition to many of the main PC programs is the use of macros. A macro is the ability to carry out a number of repetitive or complex tasks in a program by saving all the instructions to a file and then running the file. Protext, Dbase and SuperCalc all allow macros. These can be written as text files or you can switch on a macro learning mode and perform all the necessary keystrokes. After this, by pressing a couple of keys you can perform literally dozens of operations without even touching the keyboard.

## PROTEXT

While LocoScript PC sets out to give a recognisable environment to the PCW user, Protext Version 5 seems to use the basic layout of the PCW version as a launching pad for a flight of fancy in the word processing world.

In PCW Protext you can have two files active at the same time. In the latest version of PC Protext, you can have two files on screen at the same time or you can have 12 files active simultaneously.

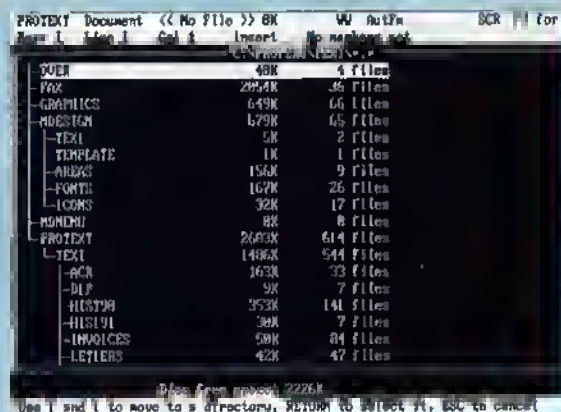
In the PCW everything has to be done from commands typed in Command Mode, so that you have to memorise many of the command words before you can operate it successfully. In the PC you can run everything using a mouse and pull down menus - a useful feature, as there are many more

commands to choose from.

Having said that, anyone who has learned Protext on the PCW will probably be the winner in the long run. While it is fun to use the mouse to click on commands it is still quicker to flick into Command Mode and type in your instructions.

The mouse is far more useful for text handling in PC Protext. It is much easier to mark out a block of text and move it with a mouse than with the cursor keys.

But a major advantage of the PC Protext is that it still takes the PCW version into consideration. There is a conversion file for both importing and exporting files to CP/M format so it only takes a matter of minutes to be using your transferred files.



PC Protext - the program has its roots in the PCW, but offers a totally new way to find and load a file

## DATABASES: DBASE

If you are a dedicated user of DBase on the PCW, you may well be the person to contain the concept of DBase IV on the PC. The PCW version bred a special type of user who probably would enjoy the challenges and opportunities of DBase's bigger brother.

But to be honest, going from the PCW to the PC version is like stepping out of a Robin Reliant into the cockpit of a Jaguar Jumpjet.

DBase has always been a lot more than just a database. Even in its humble PCW form it was a powerful

programming language. It demanded time and effort but repaid it by allowing you to do much more than you probably thought was possible.

But this pales into insignificance compared with what DBase IV is prepared to do for you. The PCW version came with an admittedly hefty tome of a manual. The PC program comes with a library that fills a bookshelf, a sophisticated series of tutorials and a series of examples that should keep you occupied for hours. The PCW program comes on one disc. Its PC

counterpart comes in 10 disks and takes up about six megabytes of space on the hard disk.

Which is why you have to face DBase IV as a challenge. It would be possible to be overwhelmed by the scale of the program. And yet, for simple applications, it is much easier to get to grips with than the PC version.

There were attempts to make the rather spanner CP/M environment more user friendly. But at the end of the day the basis of DBase was still the famous (or was it infamous) dot prompt. This ➤

is a rather daunting blank screen with one tiny dot, daring you to enter the correct command. No on screen prompts to reassure you. Just a dot.

In this rather uninspiring environment you could create some very sophisticated applications. But it was certainly not for the faint-hearted.

When you load up DBase IV the first

thing that appears is that same faithful dot prompt. But by pressing one key you can access a complex but effective attempt to make the program more accessible – the Command Centre.

Another key gives you a full pull down menu system that takes you through the whole process of creating and using a database.

With effective on screen prompts and good help files, this version eases you through the early stages of getting to know the program without too many teething troubles.

But, if you already are familiar with the dot prompt commands, you can revert to this environment which is still the quickest and most effective way to get results from DBase.

Databases are one area where the extra speed of the PC comes into its own. For big database files DBase IV can obviously react more quickly than the PCW version.

But at the end of the day probably the most reassuring thing about using DBase IV is that you know that it should be able to handle any database

application you can throw at it – once you have worked out how to use it.

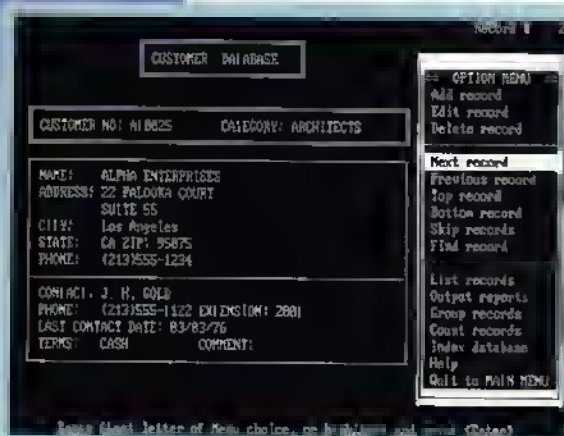
## Files

Databases are probably one of the best equipped programs for allowing you to transfer data between computers – and the sophistication of DBase makes this even more true. Virtually all databases will allow you to export files in ASCII form, the code that is understood by most computers.

Most database files are no more than a very long stream of text divided up into fields (that's one line – say a line of an address or a name). How the text is divided up varies according to what program you use.

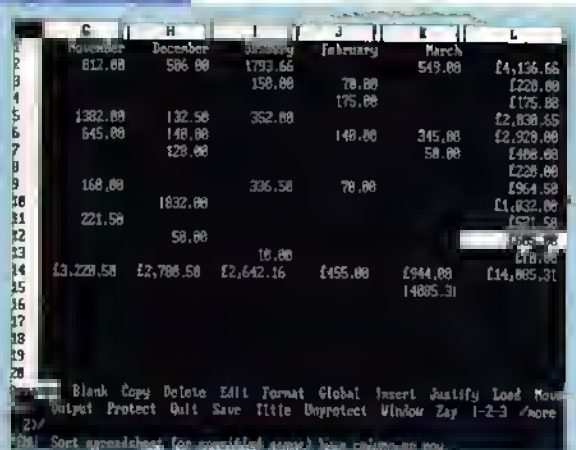
DBase IV has a comprehensive list of data files that it will accept and will then allow you to set up a conversion program to cater for any form of file it hasn't yet heard of.

Naturally it also covers DBase files from older versions of DBase including DBase II. It will also export files in any of these formats so passing files back and forward is no problem.



DBase example files help you understand the program's complexity

## SPREADSHEETS: SUPERCALC



The layout of SuperCalc PC is easily recognisable to PCW users

The PCW SuperCalc user will immediately be at home in the PC version. It looks the same (except that

the potential size of a spreadsheet is significantly bigger) and it uses the same method of commands, the slash "/" followed by a letter.

The fact that there are several times the number of commands and options and the fact that there are several, subtle differences in those commands between the PCW and the PC is not as much of a problem as you might think.

The extra power of the PC allows SuperCalc 5 to give really effective on screen prompts in a way the PCW version never could. When you type in a slash in the PCW, all the possible command letters appear on screen.

Do the same in the PC version and the command names for each of the relevant letters is displayed. As you flick through the options and you are constantly informed of what each does. And if you do get stuck there are always help files on call.

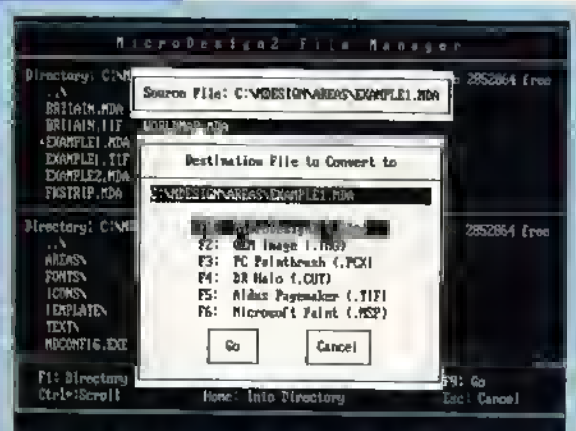
This means that you are very quickly carrying out quick, quite complex operations, including using the effective graph and chart drawing features, in a remarkably short time.

Speed around the spreadsheet is also greatly improved in the PC version meaning that you can take advantage of the flexibility of the spreadsheet setup to carry out the most complex tasks.

## Files

Despite the fact that SuperCalc actually started life as a CP/M program the documentation doesn't admit too much about its humble origins. In fact it doesn't even mention the possibility of transferring files from the PCW. However the PC version of SuperCalc will accept data files transferred from the PCW and can import and export of different file types suitable for many of the major spreadsheets.

## DESK TOP PUBLISHING: MICRO DESIGN 2



The PC version of Micro Design 2 has a new file manager which allows you convert files to most formats

One PC program that is true to its PCW roots is Micro Design 2. DTP is a different market on the PC. You can spend hundreds of pounds on a package that is able to produce pages to a professional standard. The simpler task of putting words and pictures together on a page is often forgotten by these highly complex programs.

Micro Design 2 performs the same sort of function on the PC as it does on the PCW. And the price of £69.95 will certainly appeal more to the average non-business user.

Although it does include a few extras and it does greatly improve the screen update, it is essentially the same program. As the PCW and the PC have a different keyboard layout and different

names for the keys you do have to get used to a marginally different method of working. However, and with a little experimentation and native cunning you can use the program without looking at the manual.

One valuable addition to the utilities in Micro Design 2 is a file handling program that allows you to copy, move, sort and look for your files. This is far more useful on the PC, where many more users have a hard disc with innumerable files.

But the most important task for this file handler is to convert graphic files into or out of virtually every main graphic file type. And at the top of the list is the option to convert Micro Design 2 area files. What more could you want?



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# Robbing Reliant

*Being deprived of your PCW for a few hours can be insufferable.*

*But for a whole week? Nick Vandome relives a nightmare*

**Y**ou'll have to be gentle with me during the course of this column because I am just recovering from something that every Amstrad owner dreads; separation from my PCW. Luckily I have recently been reunited with my better half and the palpitations and hot flashes have stopped, but it has made me realise that my 8256 is as vital a part of my life as the air that I breathe.

My period of purgatory began with the idea of a short working holiday. I had been invited to stay with a friend in Fife, on the east coast of Scotland, and I also had a couple of articles that I needed to write. Luckily my friend was an Amstrad disciple and owned an 8256, so I set off with a happy heart, a bulging notebook and a pocket full of discs, secure in the knowledge that I would only be PCW-less for the duration of the train journey.

When I arrived in Fife I was met by a grief-stricken friend. "I've got some terrible news," he lamented. "I've just had my 8256 upgraded with a 512K Memory Upgrade Kit."

"Great!" I said, imagining how my work would be facilitated by this change.

"Well it should be great, but during the operation the surgeon put in the wrong chips and the patient is now in grave danger."

## Doomed

I was thunderstruck. When I asked if it would survive my friend told me that it had a good chance of recovery but that it would need to be in the PCW surgery for at least another week. My own situation was now critical; here I was with deadlines looming and my writing lifeblood lying inert in the hands of a computer doctor.

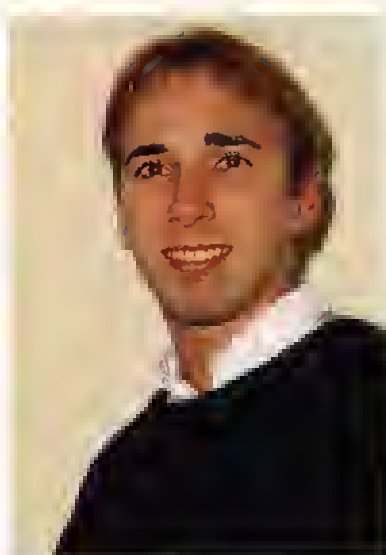
"Don't worry," said my friend reassuringly. "I have a typewriter."

"A what?"

"A typewriter – it's one of those archaic writing machines. A bit like a PCW without all the useful bits."

This proved to be a grave understatement, as my friend (who was fast becoming an ex-friend) produced a hunk of metal that looked as though it had been manufactured during the Iron Age. I examined it closely for a disc drive, but I soon had to resign myself to the fact that I was going to have to try and write with this metallic monster.

So my working holiday turned into a working nightmare as I tried to strangle with a machine that needed the force of Arnold Schwarzenegger to move the



Nick Vandome, freelance writer extraordinaire, recovering from the prospect of having to survive a week without his PCW

keys and had no idea of the subtleties of life such as LocoScript, Justification, End Of Line, Paragraph, Cut, Paste and all the other 1001 things that PCW owners take for granted. The irony of the situation was heightened by a memory of when I was in the middle of the African bush in Zimbabwe – even then I had managed to lay my hands on an 8256 and so avoided resorting to a typewriter.

Anyway, the articles got written, the shares in Tippex soared and my fingers were so bruised that my career as a concert pianist was stopped dead in its tracks. By the end of the week I was getting severe PCW withdrawal symptoms and began to ponder how I had managed before the 8256 wandered into my life.

The truth of the matter is that I may have never written a single word in anger if it had not been for the PCW – the awful thought of assaulting a sheet of paper with a typewriter was too much to contemplate and my literary career was only kick-started by the ease and efficiency of the PCW that is so well known to all Amstrad users. Now my machine has become a kind of emotional writing crutch – I just have to look at it in the morning to know that I have the perfect means of setting down my words (if not necessarily the means of dreaming them up in the first place), and the creative day is off to a good start. So my week without a PCW was one of frayed nerves and a longing for a little

green cursor to appear before my eyes. But when I had a chance to look up from the dreaded typewriter I saw that my friend was similarly stricken and sat staring into space, muttering about Databases, Spreadsheets and Accounts programs. He is what I would describe as a computer enthusiast – if he has a problem he will use the PCW to solve it, and he will even think up new problems just to put his machine through its paces. No puzzle is too small or too large and his 8256 is a work tool, a toy and his inseparable friend. (Incidentally, his wife was delighted that the house had become a PCW Free Zone for a week because she has been considering instigating divorce proceedings and citing the Amstrad as the reason.)

Once I returned home and was reunited with my faithful friend I had time to reflect on my week and why the PCW has become such an important part of so many peoples' lives. Looking at the examples of the people I know who own Amstrads I can only conclude that the continued success of the 8000 and 9000 range is that if they are not all things to all computer users, then they are at least most things to most computer users.

For the computer illiterate like myself they are a perfect work tool and with Rampacs, hard discs and the various other extensions and add-ons that are available they can satisfy all but the most fanatical computer buffs.

## Keeping it simple

When I was young I was told that the secret of attaining a ripe old age was to lead a simple, frugal life: don't smoke anything you don't recognise, don't drink anything you can't pronounce and don't go out with anyone who is madder than yourself. So far this has worked, and the longevity of the PCW seems to be based on a similar theory: in an age when computers can guide space shuttles to the moon the PCW has stuck to what it knows – and continues to win more converts as a result of its simplicity.

The best comparison I can make with the PCW in the real world is the Mini (that's the Mini car, not Mini Office): it's small, it's cheap and it does the job. I fully expect that, like the Mini, the PCW will continue to gain in popularity in years to come; I just hope that the users of the future never have to suffer being parted from their machines.

"Now my machine has become a kind of emotional writing crutch – I just have to look at it in the morning to know that I have the perfect means of setting down my words (if not necessarily the means of dreaming them up in the first place), and the creative day is off to a good start."

"The irony of the situation was heightened by a memory of when I was in the middle of the African bush in Zimbabwe – even then I had managed to lay my hands on an 8256 and so avoided resorting to a typewriter."

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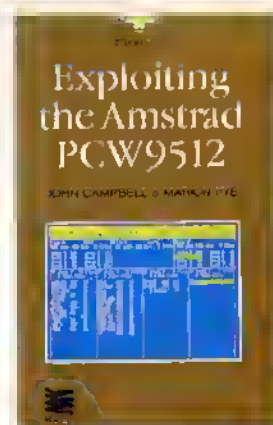
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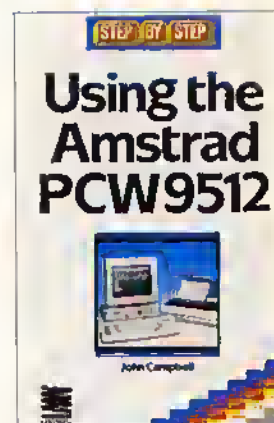
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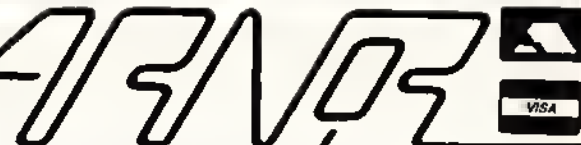
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**T**his year our company decided to save pots of money by abandoning its "sophisticated" electronic communications system. For years we'd been struggling with one of the world's worst, a network seemingly designed by a computer hacker who once went to business school but failed miserably.

You want me to name names? I will name names. Telecom Gold.

The idea is simple. You have a computer, an interface box and a modem. You ring up the system to send or receive text messages.

(You can also download information from databases and suchlike.) The PCW's MAIL.232 program would do, although for regular use you'd want some software that automates the typing of fiddly passwords.

### The select few

One thing you soon discover is that few people actually use Telecom Gold. Most people write letters or make telephone calls; otherwise they use more luxurious means of communication such as telex or fax. Fax is the more expensive of the two, and is also technically inferior: messages arrive as printed images, and if you want them on disc they have to be typed in again.

This is where Telecom Gold should score, but unfortunately it's such a pain to use that few bother to persevere.

On joining the 'service' you receive a confusingly arranged booklet with a lousy index and several errors. This insists that TG is easy to use ... but the information on setting up those complicated comms things like data and parity and stop bits (without which you can do nothing) is buried on page 58 in a chapter mystifyingly titled "Off-line preparation". The setting-up process is called "emulating" by TG: there is no index entry for this, or any plausible synonym to lead you to this crucial information. Very handy.

Such disinformation is apparently a ploy to extract more money. A fatter manual is available, for an equally fat price. It's as though your telephone subscription only entitled you to edited highlights of the directory.

You dial up the TG computer. If you live outside London you'll want to save money by connecting via a "PSS" number at local call rates (though many places are so remote and barbaric that this isn't available. Wiltshire, for example. More expensive).

The TG booklet lists PSS numbers, but doesn't mention the secret extra characters you must type before PSS will accept the connection.

Several passwords and countersigns later, you are in TG itself! Often this doesn't work first time, or the system disconnects you mysteriously, or is out of action for "necessary maintenance" ...

### Economy measures

I have a theory that BT bought a second-hand computer from NASA or someone, which periodically halts while men in overalls prod it with screwdrivers. A backup machine? Don't be absurd. That

would cost money. Meanwhile, you are personally allowed to pay for all those wasted 'phone calls.

At long last the glories of Telecom Gold await you.

TG uses plain text only. To clear the screen it laboriously sends 25 carriage returns and line feeds. Posh layout consists of long rows of spaces, hyphens or asterisks clugging along the line.

Occasional lines are too long, so that text wraps amateurishly in mid-word. Punctuation and spelling are both erratic. You are, incidentally, charged for every character - cold comfort indeed.

### Pardon?

TG does not have any system for correcting transmission noise (which is of course totally unheard-of on BT lines): often a bit of text will look like `l{[h] li}kw th} [/s`. What's the matter? I merely said, a bit of `l{[h] li}kw th} [/s` will look like this. You pay if you want the garbled bits repeated ... per character and per second of connection time.

TG is a business system, so you'd expect to use currency symbols. Yes, but only dollar signs. If you send the message "You owe me £100", the £ vanishes ... same with the yen sign and every single accented character in the ASCII set. BT chose an antiquated transmission setup which handles text characters 32 (space) to 126 (ilde) only; so this British system can transmit symbols for American but not British currency. How to send that message: "You owe me #100." Other TG victims will understand.

TG has another surprise waiting. Businessmen sometimes use the sign @ ("at"), which is in the allowable range. If you type it, though, something happens which isn't even hinted in the infamous "TG Quick Guide". The entire typed line containing the @ sign is cancelled and not transmitted. What a novelty.

TG charges for basic information about TG. Want to work out how they calculate their incomprehensible bills? First you must register yourself as worthy to learn this occult data (which took us weeks). Then you enter a special command, "INFO SBI". Whereupon screen after screen of weird text scrolls by, full of naff layout and # signs, none of it seeming to bear any relation to your bill ... and you pay for every character.

### The good old days

TG lives in the past. When you ask for "INFO" on something, you are instructed to set the printer paper in the top of the page. They assume you're using not a computer but a teletype.

TG's message services are all mutually inconsistent. There is one almost straightforward way to send a plain message to another user. A rather more tortuous route will send a telex. And an insanely complex path must be followed for a fax, with numerous daft requirements ... for example, you must enter the full international dialling code to fax someone in far-off Britain.

Finally, TG has a sense of timing which all aches could be forgiven for just



# Bye-Bye B.T.

*Advanced communications  
technology is not all that it seems - as  
David Langford discovers to his cost*

being a classic example of bad programming. So, how does this little gem manifest itself? It arises from the situation where messages arrive in your "mailbox" after you've looked through it, but before such time as you actually "log off" and leave TG.

When this happens, TG issues its usual mass of pointless sign-off information ("CPU time 01 seconds": gosh, thanks), then announces that a message has arrived ("Mail call (1 unread)") — and then, without pausing one instant, it disconnects you and leaves you to plod again through the whole laborious business of getting back into TG, should you want to know what the message actually contains.

Grown men have pulled their own heads off in rage at this trick.

Why do I suspect that British Telecom would prefer people to switch to fax? In confidence, what we're doing now is posting each other text on discs: that's nearly three-quarters of a million characters for just 22p. You know it makes sense.

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# Clean Machine

*Resilient though it is, the PCW8000 series printer puts up with an inordinate amount of wear and tear. This month, we find out how you can revitalise an exhausted print head - in six easy steps*

One of the main criticisms levelled at the PCW 8256/8512 dot matrix printer concerns the quality of its output. Many of you who have 'made the break' and invested in one of the numerous PCW compatible external printers on the market - such as the Canon Bubblejet, or one of the Citizen range - will be safe in the knowledge that your new model knocks the duns off a PCW original.

This is fair comment; the PCW's native printer was never intended to be the Rolls Royce of the printing world, and was built to execute everyday tasks in as straightforward a fashion as possible. And besides, with the cost of an external printer starting at around £230, you will expect to see some major improvements over the native printer.

Basic though the standard PCW 9-pin dot matrix is, it can still benefit enormously from a spot of attention now and again. If you don't have any desire to rush out and buy a brand spanking new printer, it is well worth investing in the time and trouble - both of which are of minimal quantity in this case - to maintain the original dot matrix.

One of the most likely causes of

printer deterioration is wear and tear on the nine tiny pins which make up the striking force of the print head. Excessive use can result in the accumulation of dust and grime on the pins themselves, and the blockage of the tiny shafts through which the pins are fed on their journey to the ribbon - and then the page. The effect of such conditions is usually either incomplete formation of letters with 'descenders' - such as g, j, y, and p, or just a general reduction in printout definition.

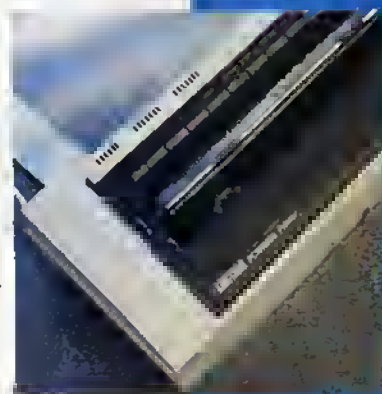
Such symptoms can often be rectified without having to venture into the insides of the print head. In the case of generally faded printout, check your ribbon; in two ribbons are identical in terms of the lifetime which you can expect from them, and it could be that the present one has expired prematurely.

If this is not the case, try this simple, effective cleansing procedure, recommended by reader T. Dukes from Norfolk. Remove the ribbon cassette from the printer. Take a sheet of thick A4 paper - Conqueror is a useful type - and spray stripes of WD40 down the page, leaving a uniform gap in between each stripe. Find a shortish document on your current working (data) disc. Feed

the WD40-clad paper into the printer, and print out the document several times. The print head will pick up the WD40 from the stripes which you have made, and deposit any excess grime on the bare stripes. The resulting improvement in printout quality can be astonishing, and if you carry out this procedure once every few months, then you will be making a valuable contribution to prolonging printer life.

Another simple way of forestalling print head clogging is to invest in a dust cover for your printer. Dust particles cling to seemingly invisible elements of machinery with a steely resolve, so even minor precautionary measures such as this will be of help.

This month's step by step guide shows you what to do if any of the above steps do not cure your printout quality. Cleaning the printer pins will make the world of difference to your output - and if you treat your printer with care and common sense, then it will continue to serve you well for many years to come.



## Fact File

● The tools which you need for this month's maintenance feature are as follows: a flat bladed screwdriver, a very small crosshead screwdriver (watchmakers' screwdrivers are ideal); a set of six costs just over £2.00 from most good DIY shops; a pair of cosmetic tweezers (£1.55 from a chemist's); a can of WD40 (£2.40 from most garages or car accessory shops); a soft cloth, and some Tippex (or similar). And last, but by no means least, a pen and paper!

● The two versions of the PCW 8000 series print head which we have looked at are, as you know, the 'a' and the 'c' series. Strangely enough, a 'b' series was never made...

● If your PCW is in need of more serious repair, check last month's directory of PCW repairers, on page 59 of April's 8000 Plus.

## THE PCW8000 SERIES PRINT HEADS



The 'a' series print head

Since the PCW was first introduced all those years ago, there has been a change in the type of print head on the 8000 series machines. The two main strains are the 'a' series and the 'c' series. Although you can barely tell from the outside, the print heads are very different in internal structure.

Before you begin to tackle this month's step by step guide to cleaning the print head pins, remove the plastic flap on the top of the printer take a look inside. The 'a' series printer is the elder of the two models; ours, shown above, is typical of the



The 'c' series print head

breed, except that it is lacking a silver coloured label with the words 'Caution hot' in red letters. So, if yours has that label, then you will be able to tackle the repair procedure indicated for the 'a' series.

The more modern version, the 'c' series, has a distinctive black plastic housing, with the word 'HOT' in capital letters on the top, and a small section of bright green metallic ribbon. As a further check on your particular version, turn the printer upside down, and read the circular sticky label on the base.

## Hints & Tips

### ● Step 1a:

When you lift the print head clear of the inside of the printer, turn it through 90 degrees so that the plastic plate which sat facing the roller faces upwards. It is essential that you maintain a firm grip of the print head to avert disaster in the next step!

### ● Step 2a:

Before you start to loosen the screws, make sure that the print head is lifted clear of the inside of the printer. You are aiming to let the screws drop out when you rotate the head in a minute, and they could be difficult to retrieve if they fall inside the casing.

### ● Step 2c:

Once you have removed the metallic band, the print head is in a very fragile state. You must keep the two sections together until further instruction. If they separate, the pins will fall out.

### ● Step 3a/3c:

The reason that the diagram is so crucial is that each of the nine print head pins is made slightly differently. So, you need to be sure that you are able to replace them in the correct order. Try sticking the actual diagram down on to the work surface with a piece of masking tape: this will prevent the possibility of the paper being jotted and the pins being dispersed and losing their places on the diagram. Finally, make sure that your work surface is not in any draught.

**A series**



**1** Switch off the PCW, disconnect it from the mains and then unplug the printer. Remove the black plastic flap from the top of the printer casing. Locate the print head, which sits at the end of a stretch of copper 'ribbon'. Position the printer at the angle shown above. At the point where the copper ribbon feeds into the print head, is a flat metallic plate. Using a flat bladed screwdriver, gently prise the flap off. The print head will now lift clear of the inside of the printer, still tethered to the copper ribbon.

**C series**



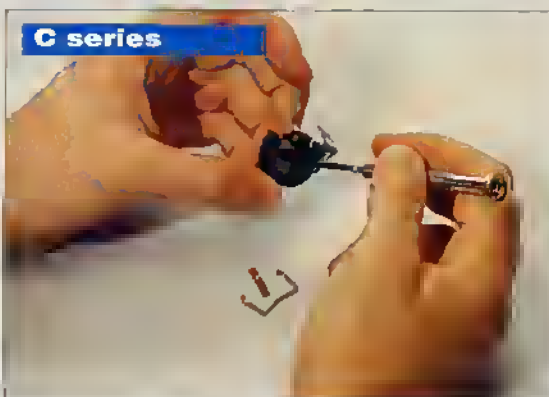
First of all, switch off your PCW, disconnect it from the mains and unplug the printer. Remove the black plastic flap at the front of the casing. Locate and identify the print head. Using a flat bladed screwdriver, inserted at the right hand side of the print head underneath the section with the word HOT on it, prise the top section away from its mounting. It should come away with the minimum of effort. Hold the print head so that 'HOT' reads the correct way up, and the rounded hub is pointing away from you.

**A series**



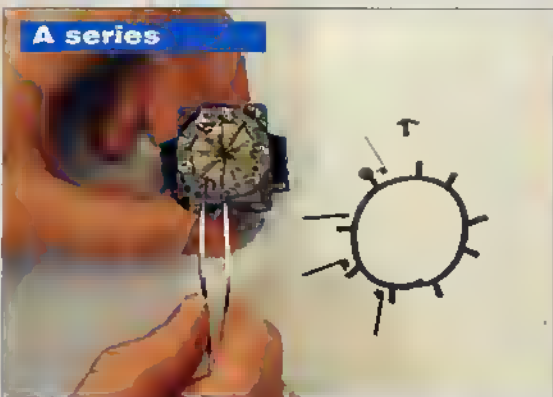
**2** Using a very small crosshead screwdriver, loosen the four screws which corner the print head. This next step is crucial! Holding the two sections of the print head tightly together, turn the whole head upside down, so that the screws drop out. With one set of fingertips, lift the topmost section (which is attached to the copper cable) clear, gripping the bottom section in the upturned fingertips of the other hand. Keeping it in this position, lower it gently to the work surface.

**C series**



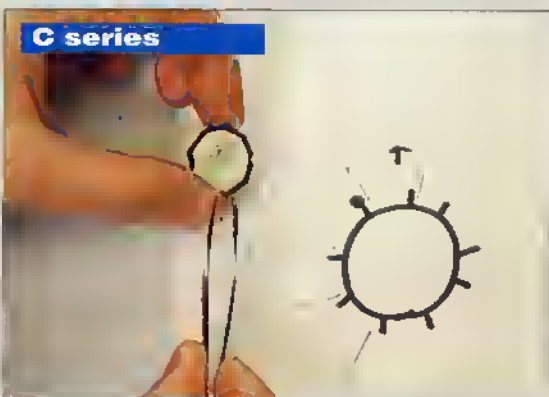
Holding the print head upwards with the hub pointing away from you, gently lift off the plastic section with the word HOT on it. Carefully turn the print head so that the hub - and the tiny cluster of pins therein - are facing downwards. Use the flat bladed screwdriver to remove the metallic band securing the elements of the print head. Insert the blade at the point where the green metallic ribbon disappears into the print head. Gripping the head firmly, prise the sections apart.

**A series**



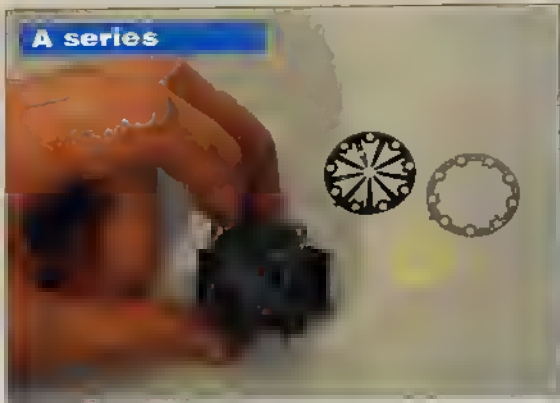
**3** With the exposed print head before you, make a mark with Tippex on the northern most spoke of the wheel-like structure. Take a piece of paper and a pen, and draw a diagram of the cluster of pin heads at the centre of the wheel, marking the nine positions of the pins. Put a mark on your diagram to correspond with the one you have made on the wheel spoke. Use the tweezers to remove the pins one by one and place them in their respective positions on the diagram.

**C series**



Still making sure that the pins are pointing downwards, place the freed hub section on to the work surface. Put a blob of Tippex at the northern most point of the raised section in the middle. Take a sheet of paper, and a pen, and draw a rough representation of this middle section, with nine points, and a mark corresponding to the one you have placed on the print head itself. One by one, carefully remove the pins and place them on the diagram in their respective positions.



**A series**

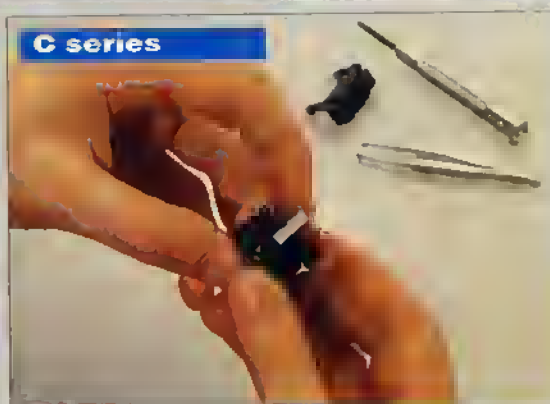
**4** With the pins neatly laid out on the diagram, go back to the wheel mechanism. Using the tweezers once more, take hold of one of the 'spokes' and use it to lift the wheel clear of the casing. Put it to one side. Next, remove the metallic ring which sits underneath the top wheel, and then take out the felt pad which sits in the base of the plastic housing. Gently clean the two metallic parts with WD40, and spray the bottom of the hub. Take the pins one by one with the tweezers, and clean them with a cloth soaked in WD40. Leave to dry.

**C series**

Take some kitchen towel or a soft cloth, and douse it in WD40. Hold it between your thumb and forefinger so that you are able to squeeze it together. Using the tweezers, pick up a pin from your diagram at the plastic end. Gently introduce it to the awaiting cloth, and move it carefully along the moistened surface. Repeat the procedure with all nine pins. Take the plastic housing that the pins have come from and spray it with WD40, paying special attention to the middle section through which the pins are fed.

**A series**

**5** Reassemble the cleaned wheel structure, in preparation for the arrival of the pins. Using the tweezers, replace the pins one by one using your diagram to guide you. Put the completed structure (wheel side still pointing upwards) on to the work surface, and retrieve the printer. Pick up the other section of the print head (attached to the copper cable), and join it to the open section - making sure that the wheel section is still facing upwards. Those pins are not yet secure!

**C series**

When all the pins have all been cleaned, replace them, using the diagram as a guide to their location. Use the plastic heads as a guide to correct positioning. Replace all nine pins, and then take the section which holds the green metallic ribbon and join it with the hub section. Holding the sections firmly together, reposition the bent metallic strip across the chamber at the opposite end to the now downwards facing hub, and click the 'M' shaped metal clip home.

**A series**

**6** Pressing both sections firmly together, turn the mechanism over so that the black plastic plate is visible. Reposition the screws. Tighten them with the crosshead screwdriver. Remember, until the two sections are firmly joined, the pins will be in danger of falling out. Turn the head so that the black plate faces the roller. Slide the whole mechanism forwards. Retrieve the metallic plate and replace it so that it secures the copper ribbon to the base of the printer.

**C series**

Turn the print head so that the hub side faces away from you. Take the black plastic clip which has the word HOT on it and place it over the top of the green ribbon so that it reads the correct way up. Click it into place. Retrieve your printer. Keeping the hub pointing away from you, slide the mechanism back into the awaiting bracket, feeding the exposed end of the green metallic ribbon into the narrow slit at the back of the bracket. Replace the black plastic flap.

**Hints & Tips****● Step 4a:**

The very base of the A series print head will probably be covered with ink and dust. Because it is one of the more robust elements of the mechanism, you can afford to be bold when you clean it. If the tiny pin shafts are not cleaned properly, pin movement will be obstructed, and printout quality will not improve.

**● Step 4c:**

When you are cleaning the pins, take care not to squeeze too hard with the cloth. The pins are made of very fine metal, and can bend if treated too roughly. Make sure that the cloth you use is not of too fibrous a material - and that it doesn't have a mesh-like structure. The end of a pin could catch and bend in the cloth.

**● Step 5a:**

When you reassemble the wheel, look out for the special tab on the topmost one. It has a corresponding socket in the side of the print head base to ensure correct positioning.

**● Step 6a:**

When you come to slide the whole print head forwards, look out for two lugs at the front of the print head's base: these have corresponding 'humes' on the receiving platform, and will help ensure correct positioning.

● When the operation is complete, replace the ribbon and test-print a few pages of text in draft quality.

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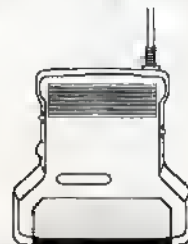
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# Listings

*A riddle: magazines do it, newspapers do it, fanzines and advertisements do it, but LocoScript has trouble with it. What is it? The answer is printing in columns. Martin Le Poidevin investigates*

There are ways of achieving this much sought after effect in LocoScript (using a complex LocoMail program, or putting the paper through the printer several times) but these are terribly fiddly and require a lot of thought and calculation. This may have put you off in the past, but since printing in columns can look so professional this is something of a shame.

Which is where Mr Clayton's COL.BAS program comes in. Very straightforward. Simply run the program, tell the computer which file you want to print out and decide on print size and quality. You can even add headers and footers (which are automatically centred) should you so desire.

There are a few things to bear in mind. First and most important, the program can only deal with ASCII files (of up to 31k, the author claims). LocoScript files must be therefore be converted before they can be used - not a complex procedure if you use the [F1] 'Make ASCII file' option (that's LocoScript 2 - in LocoScript 1 it lives under the [F7] key), and select 'Simple text file'.

When COL.BAS asks for the file name, give the full name (including filetype). Once your file has been accepted you will be asked how many columns you require, how many characters per inch, and whether you will be using A4 or continuous paper. Then it's up to the PCW to start making some calculations. While it does so, a stream

of dots appears on the screen to assure you that things are happening.

Your next input is the headers and footers. You are asked about each individually, and your first answer in each case should be either 'Y' ('I want a header/footer here') or 'N' ('I don't'). If the answer was 'Y', you will be asked to input the text (remember it will be centred for you); if 'N', you will go to the next header/footer.

The final decision to be made is whether to send the output to screen - to check it - or to the printer. Unfortunately, if you send it to the screen, you will have to re-run the whole program in order to get a printout.

There are a couple of other restrictions, too. The program will not recognise 'tab' and 'end of page' characters, although the first of these can be overcome using spaces instead of tabs. Nor can you edit the text once it has been sorted into the final page image.

The program is written specifically for the 8000 series printer. However, it ought to run on the 9512, with the following modifications. Firstly, change the POKE command in 470 to read 'POKE 18591,10', keeping the rest of the line as printed; likewise, the POKE command in 620 needs the numbers 18591,0 to follow it. Next, replace line 810 with REM. Line 780 should read I.PRINT CHR\$(27);"@";"Q";CHR\$(margin%);. In Line 490, replace the @ with CHR\$(26);"I".

The results on the 9512 may be less than ideal because of the difference in printers, but it works all the same. It is probably best to use pitch 10 with 2 columns to begin with; but experiment and see just what you can achieve!

## REMs

Any text following a REM command (or a "''") is a "reminder", and is ignored by the computer when the program is running. It is not vital to type them in absolutely as printed. Any variation will, of course, affect the check numbers at the end of the lines, but as long as the code before the REM text is correct, the program will still run perfectly well.

COLUMNS		
THE HISTORY OF COLUMN PRINTING	column. The fact that a second column - known as a 'Pillar of Fire' - preceded this is not nowadays seen as sufficient evidence of any multi-columnar intent. However, by the time that the Romans swept across Western Europe and North Africa it is clear that they were skilled in the use of multi-column tactics, in their fighting as well as their propaganda (which, being in Latin, nobody could understand, GED).	some time after Charlemagne, Castron eventually got round to inventing the printing press, and Column.Bas (as his name should, research has now shown, be spelled) discovered America. To celebrate this concatenation of events, the Battle of Trafalgar was fought, as a direct result of which the phenomenon known as 'Melsana's Column' was invented. Until now, this had always been treated as the single greatest event in columnar history.
It is not so all clear when multi-column printing first met the light of day in Western culture. The Egyptians may have used the call, rolling with their coniform hieroglyphs (viz, Cleopatra's Needle), while just across the waters of the Mediterranean Sea the Greeks were experimenting with various sorts of columns (five in all, leading to the time of fifth columnists). Of these, the Doric and Ionic became the most popular, especially when used in conjunction with Corinthian capitals.	Certainly, the Hebrews had not discovered the technique - when crossing the Red Sea they definitely used one	After the Romans came the Dark Ages. Europe reeled under the blows of successive foreign invaders, and pillars and obelisks (in fact, anything connected with uprightness) went down the plug-holes which had not yet been invented. When order was restored,
page 1		

A print from the program, using pitch 12 with 3 columns. We cheated a bit by shortening the page - which meant changing 'max' in line 560 to the value 27. It's a shame, though, that the Professor can't spell 'hieroglyph'!

```

10 REM - - - - - 0 COL.BAS BY J.R. CLAYTON 3/91 - - - - - 19B0
20 DIM line$(62,4):e$=CHR$(27):cls$=e$+"E"+e$+"H":rv$=e$+"p":ev$=e$+"q" 1844
30 DEF FNa$(r,c)=e$+"Y"+CHR$(32+r)+CHR$(32+c):DEF FNcm$=FNa$(4,0)+e$+"J" 1A3C
40 DEF FNw$=e$+"X"+CHR$(36)+CHR$(32)+CHR$(56)+CHR$(121) 1353
50 DEF FNprt$(line$,colw%)=line$+SPACE$((colw%-1)-(LEN(line$))) 1B0B
60 PRINT cls$:rv$:SPC(88):PRINT:PRINT SPC(33);"COL.BAS by J.R. Clayton"; 27C2
   SPC(33) 0CD7
70 PRINT:PRINT SPC(88);ev$ 1B37
80 PRINT FNcm$;:INPUT "name of file to process";infil$
90 IF FIND$(infil$)="" THEN 80 ELSE OPEN "R",#1,infil$,1:OPEN "O",#2,"M:t.fil"1DEA
100 FIELD #1,1 AS a$:GOSUB 500:page%=1:PRINT FNcm$FNw$;"PLEASE WAIT"; 1F99

```

By now the program has already set up many of its functions, and has discovered the name of the file to be dealt with

```

110 REM - - - - - 1 MAIN PROGRAM LOOP - - - - - 187B
120 GET #1:WHILE NOT EOF(1):a%=ASC(a$) 10E8

```



```

130 IF a%=13 THEN 170 ELSE IF a%<32 THEN 160      1112
140 IF a%<160 AND a%>127 THEN 160 ELSE IF a%=32 THEN 1s%=LEN(c1$)      1902
150 c1$=c1$+a$:IF LEN(c1$)=colw%+1 THEN GOTO 190      1368
160 GET #1:WEND:GOSUB 240:CLOSE :GOTO 250      14A1
170 GET #1:GOSUB 240:1s%=0:GOTO 160:'- - - - - 1A SORTS OUT C/RETURN      2162
180 REM - - - - - 1b SPLITS LINE - - -      168C
190 IF 1s%+1=LEN(c1$) THEN c1$=LEFT$(c1$,colw%):GOTO 200:ELSE 210      1D86
200 GOSUB 240:1s%=0:GOTO 160      0BEB
210 IF 1s%=0 THEN 1s%=40      09F3
220 tempc1$=c1$:c1$=LEFT$(c1$,1s%):GOSUB 240:c1$=RIGHT$(tempc1$, (colw%-1s%))      21C7
230 1s%=LEN(c1$):GOTO 160      0B71
240 count=count+1:PRINT #2 c1$:PRINT ".":c1$="":RETURN:'- 1c WRITES TO FILE-      25CD

```

Two files are maintained on the M: drive. One - written in this section - is just the original text in one long column

```

250 REM - - - 2 PAGE MAKE UP - - - - -      162A
260 page%=(count/(coln%*55)+1):cen%=((coln%*colw%)+(3*(coln%-1))):pp%=page%      1FBA
270 DIM header%(pp%),footer%(pp%),header$(pp%),footer$(pp%),max1%(pp%)      1FE7
280 OPEN "I",#1,"M:T.FIL":OPEN "O",#2,"M:T2.fil":page%=1:c%=1:1%=1:GOSUB 630      1F09
290 WHILE NOT EOF(1): LINE INPUT #1,line$(1%,c%):1%=1%+1      19AB
300 IF 1%>max1%(page%) THEN 1%=1:c%=c%+1:ELSE 320      15DD
310 IF c%>coln% THEN c%=1:GOSUB 330:page%=page%+1:GOSUB 630 :GOTO 320      1F32
320 WEND :GOSUB 330:CLOSE :GOTO 350      1194
330 FOR 11%=1 TO max1%(page%):FOR cc%=1 TO coln%:' - - 2a WRITE PAGE TO FILE      20EE
340 PRINT #2 line$(11%,cc%):NEXT cc%:NEXT 11%:ERASE line$:      2477
DIM line$(62,4):RETURN

```

The second file is written in this section - it arranges the columns in an 'interleaving' pattern, making them easy to print

```

350 REM - - - 3 PRINT PAGES - - - - -      1625
360 GOSUB 580:GOSUB 760:OPEN "I",#2,"M:T2.fil"      1397
370 FOR p%=1 TO page%:IF header%(p%)=0 THEN 390      1422
380 PRINT:PRINT:PRINT header$(p%):PRINT:PRINT:PRINT:PRINT:PRINT      2746
390 FOR i%=1 TO max1%(p%):FOR d%=1 TO coln%-1:LINE INPUT #2,lin$      1E1F
400 PRINT FNprt$(lin$,colw%)|":NEXT d%:LINE INPUT #2,lin$      1CBA
410 PRINT FNprt$(lin$,colw%): IF output$="S" THEN 430      191C
420 FOR d%=1 TO coln%-1:PRINT SPACE$(colw%+1)|":NEXT d%:PRINT      1D3F
430 lin$="":NEXT i%:IF footer%(p%)=0 THEN 450      1341
440 PRINT:PRINT:PRINT footer$(p%):PRINT      1660
450 IF paper$="C" OR output$="S" THEN FOR i=1 TO 10:PRINT:NEXT i      1F6E
460 NEXT p%      0499
470 POKE 18527,99:PRINT cls$;"Finished...press any key....."      1C1E
480 a$=INPUT$(1):KILL "M:T.FIL":KILL "M:T2.FIL"      154A
490 WIDTH 90:PRINT e$+"y":cls$:LPRINT CHR$(27);"@":END      176D

```

The section which manages the actual printing. Note that line 480 clears both the files which had been created on drive M:

```

500 REM - - - 4 GETS DATA FOR PROGRAM - - - - -      193A
510 PRINT FNcm$;"No Columns":INPUT coln%:IF coln%>4 OR coln%<2 GOTO 510      2279
520 PRINT FNcm$;"Set Character Pitch:[10/12/17]":INPUT charpit%      20B5
530 IF charpit%=12 OR charpit%=10 OR charpit%=17 THEN 540 ELSE 520      1CFD
540 colw%=((charpit%*7.5)-(3*(coln%-1)))/coln%      1247
550 PRINT FNcm$;"[A]4 or [C]ontinuous paper ?":paper%=UPPER$(INPUT$(1))      259A
560 IF paper$="A" THEN max%=54 ELSE IF paper$="C" THEN max%=55 ELSE 550      1DCB
570 RETURN      0516
580 REM - - - - 4a GETS OUTPUT DATA///SETS POKES - - - - -      1CAA
590 PRINT cls$"Send output to [p]rinter or [s]creen?":output%=UPPER$(INPUT$(1))      2B83
600 IF output$="S" THEN RETURN ELSE IF output$="P" THEN 610 ELSE 590      2034
610 PRINT cls$;"[N].L.Q. or [D]raft printing ?":Qual%=UPPER$(INPUT$(1))      2455
620 IF Qual$="N" OR Qual$="D" THEN PRINT cls$:POKE 18527,90:RETURN ELSE 610      237C

```

The part of the program that asks for your requirements. The following section controls the headers and footers

```

630 REM - - - 5 HEADERS AND FOOTERS - - - - -      188F

```

```

640 PRINT cls$ "insert header for page :";page%;"?" 1689
650 IF UPPER$(INPUT$(1))<>"Y" THEN max1%(page%)=max%+4:GOTO 670:
ELSE GOSUB 710 24B8
660 max1%(page%)=max%: header%(page%)=1:header$(page%)=both$:both$="" 20AA
670 PRINT cls$ "insert footer for page :";page%;"?" 16DA
680 IF UPPER$(INPUT$(1))<>"Y" THEN max1%(page%)=max1%(page%)+3:
GOTO 700 ELSE GOSUB 710 2830
690 footer%(page%)=1:footer$(page%)=both$:both$="" 15C1
700 PRINT cls$ "Setting page "page%". Please wait... ":RETURN 1C52
710 REM - - - 5a GET TEXT FOR HEAD/FOOT - - - - - 1A6C
720 INPUT "TYPE IN TEXT:MAX 60 CHARACTERS:";both$ 199D
730 IF LEN(both$)>60 THEN 710 0CAA
740 cenb%=(cen%-LEN(both$))/2 0BC0
750 both$=SPACE$(cenb%)+both$+SPACE$(cenb%):RETURN 1B6A
760 REM - - - 6 SET PRINTER CONTROLS - - - - - 1B0E
770 margin%=coln%*(colw%+2) 0BE2
780 LPRINT CHR$(27);"Q";CHR$(margin%); 10BB
790 IF charpit%=12 THEN LPRINT CHR$(27);"M";:GOTO 810 1743
800 IF charpit%=17 THEN LPRINT CHR$(27);CHR$(15);CHR$(27);"G";:
GOTO 820:ELSE 810 2317
810 IF Qual$="N" THEN LPRINT CHR$(27);"m";"l"; 134F
820 IF paper$="C" THEN LPRINT CHR$(27);"c";CHR$(27);"N";CHR$(0);:ELSE 830 1E45
830 LPRINT CHR$(27);"A";CHR$(6);:RETURN 11A2

```

Finally come the printer controls. With a bit of knowledge, it is possible to alter some of these to allow, for instance, bold printing

## TAX.BAS by R Kelly

The chancellor took us all by surprise by the alterations to VAT which he announced in the budget in March.

Less surprising were some of the alterations he made to other existing tax parameters. For instance, there was a change in the amount of the personal tax allowance - the amount that anyone is allowed to earn before beginning to pay tax - there were changes in the marriage allowance, and alterations to the rules on company cars.

When you add to this possible changes in your own circumstances, keeping tabs on what you may end up owing the Chancellor come next April gets to be very difficult.

Well, 8000 Plus comes to your rescue, with this simple but effective program from Robert Kelly.

You are asked, quite simply, for four inputs (with three more if you have a company car): from these the computer can calculate how much tax you will be liable to pay, and your net salary per annum.

The beauty of the program is its simplicity. This means that it is easy to amend, either because (say in the next

```

What is your age 34
What is your gross annual income 35000
Do you claim an additional married allowance (n) y
Do you have a company car (n) y
What is the age of car in years at 6 April 1991 1
What is the cc of the car 2200
What is your annual business mileage? 32435

```

### Summary Statement of Tax Payment and Allowance

Gross salary p.a	Taxable value of Co. car	Tax-free allowance	Taxable income	Amount of tax payable	Net salary per annum
35000	£ 2125	£ 5015	£ 32110	£ 3285	£ 25711

The results of the program, pushing it to its limits. It can't really cope with anything more than £35,000. Mind you, if you earn that much, you should be able to employ somebody to write another program for you

budget) the details change, or because you want to add to the program to make it more accurate (perhaps to include NI contributions, if you want to be reminded of such things).

Another great feature of the program is the clarity of the variable names. No

vsx3(1)=b7cc(r) here - a salary is a sal, a mile is a mile, and a cc is a cc. This makes a big difference when you come back to change the listing at a later date. Clarity is also aided by keeping lines as simple as possible - each having only one act to perform.

```

10 REM Income tax checker for 1990/91 Copyright R J Kelly (TAX91.BAS) 20E4
20 e$=CHR$(27):cls$=e$+"E"+e$+"H":PRINT cls$ 11A6
30 a%=0:sal=0:allow%=0 0910
40 PRINT cls$:INPUT "What is your age ",y% 1529
50 IF y%<65 THEN allow%=3295 0BFF
60 IF y%>=65 AND y%<=74 THEN allow%=4020 10FD
70 IF y%>=75 THEN allow%=4180 0C45
80 PRINT:INPUT "What is your gross annual income ",sal 1EEA

```

Here, we're in the midst of collecting the information, and producing the variables from it. Notice how clear lines 50 to 70 are



```

90 PRINT:INPUT"Do you claim an additional married allowance <n> ",a$      25B8
100 IF UPPER$(a$)="Y" AND y%<65 THEN a%=1720                             0FF3
110 IF UPPER$(a$)="Y" AND y%>=65 AND y%<74 THEN a%=2355                 158A
120 IF UPPER$(a$)="Y" AND y%>=75 THEN a%=2395                             10EC
130 PRINT:INPUT"Do you have a company car <n> ",car$                     1A03
140 IF car$="Y" THEN c=0                                                    1-10
150 ts%=(sal+c)-(allow%+a%)                                                0B78
160 IF sal+a%+c<23700+allow% THEN tax=ts%*25/100 ELSE tax=((ts%
23700)*40/100)+(23700*25)/100                                             21D7

```

Line 160 is the main calculation. Everything else simply prepares the material for this, in as triandly a manner as possible

```

170 PRINT:PRINT TAB(22)"Summary Statement of Tax Payment and Allowance"  273C
180 PRINT TAB(22);STRING$(46,CHR$(138))                                  0FD8
190 PRINT" Gross ","Taxable value"," Tax-free"," Taxable ","Amount of",
"Nett salary"                                                            2901
200 PRINT"salary p.a"," of Co. car"," allowance"," income",
"tax payable"," per annum"                                              2663
210 PRINT:PRINT;"£"sal,"£"c,"£"(allow%+a%),"£"ts%,"£"tax,"£"(sal-tax)    2639
220 END                                                                    0363

```

All the printing to screen happens in this section. If you want hard copy, change all the PRINT statements to LPRINT

```

230 REM Calculate taxable value of company car                          184F
240 c=0                                                                    026D
250 PRINT:INPUT"What is the age of car in years at 6 April 1991 ",age    21C4
260 IF age<4 THEN x=0                                                      087F
270 IF age>=4 THEN x=1                                                    0926
280 PRINT:INPUT"What is the cc of the car ",cc                            174E
290 IF cc<=1400 AND x=0 THEN c=2050                                       0CCF
300 IF cc<=1400 AND x=1 THEN c=1400                                       0CCD
310 IF cc>1400 AND cc<2000 AND x=0 THEN c=2650                           1169
320 IF cc>1400 AND cc<2000 AND x=1 THEN c=1800                           1161
330 IF cc>=2000 AND x=0 THEN c=4250                                       0CCD
340 IF cc>=2000 AND x=1 THEN c=2850                                       0CF4
350 PRINT:INPUT"What is your annual business mileage? ",mile            2186
360 IF mile>=18000 THEN c=c/2                                             0C0F
370 IF mile<2500 THEN c=c+(c/2)                                           0C19
380 RETURN                                                                0515

```

This final section deals with the company car. It produces a product, 'c', which goes into the main calculation in line 160

## HOW TO TYPE IN A LISTING

The first thing to do is to boot up CP/M, by loading the disc into the machine at turn-on time; when it settles down type in the word BASIC and hit [RETURN].

You will be given a bit of information about Mallard BASIC, and then the prompt "Ok". You can now begin to type in the program.

Each line begins with a number. This must be typed in, along with the text that follows it, but not the list of numbers on the right hand side (these are part of a checking procedure we publish from time to time).

Make sure that what you type is exactly what is on the page, especially in terms of punctuation. One semi-colon instead of colon may not seem much to you, but it could spell disaster for the program. Be careful, as well, that you differentiate properly between "0" (the number zero) and "O" (the capital "O"), and between "1" (the number "1") and

the lower case "L". From such small errors, great crashes flow. If you do spot an error in a line as you are typing it in, use the cursor keys to go back and amend it.

Once you are sure that a line is typed in correctly, then hit the [RETURN] button and go on to the next one. If you subsequently notice a mistake, type "edit", followed by the line number and [RETURN], and you will be given the chance to make your correction. Once you have typed in the whole program, check that everything is there as it should be by typing "list" [RETURN]. The whole program will scroll past you. To stop it at any point press [F5], and to restart it press [F5] again.

If all is present and correct, save your program to disc by typing "save" followed by the program name, which must be in quotation marks. Now comes the moment of truth. Type run [RETURN].

If all has gone well, it will work first time. If not, you may be given an error message, often with a line number attached (which may or may not help – it can often be that the line over which the computer gets stuck will be perfectly OK in itself, but it just happens to be the point at which an earlier mis-type becomes critical) so that you can rectify the fault. If there is no fault there, or no line number, check the rest of the program with a fine toothcomb.

And if you have made any changes or improvements, don't forget to save the updated version of the program (use the same filename and the old, bugged version will automatically be deleted from the disc).

When you want to use the program again you must first load BASIC as before, then type: "LOAD "filename" [RETURN]. It can then be used as before, by typing RUN [RETURN].

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### Foreign Languages, by Kosmos

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Junior Playtime (4 to 8 years)	10.95
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### Others

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Crash Course is aimed at the novice typist, and teaches 'correct' typing from the outset. Two Fingers is for more experienced keyboard users, and gradually re-teaches you into using all of your fingers on the right keys!

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9512 continuous fabric	each 2.95
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9512 Amstrad branded Film	each 3.95
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## PRINTERS

All of the following printers are supplied with the necessary cable for your 9512. If you have an 8256 or 8512 you will need a suitable interface, such as the SCA Professional at £49.95. A suitable cable will then be supplied to fit this. We are happy to give our advice on printers. Please call the number shown below during normal office hours.

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STAR LC-10 Mark Two	189.95
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Please note: at time of going to press, price changes are pending following the Budget. Please call before ordering for correct price after 1st April

Proprietor: MJ Cooper.





# The Good Club & Training Guide

With such a variety of software for the PCW currently on the market, learning how to get the best out of your machine can often seem to be a daunting trek through poorly-written manuals and stodgy jargon.

For the would-be LocoScript, CP/M or BASIC expert, a PCW User Club can provide an ideal source of knowledge. An informal atmosphere can be very productive – and there's no better way to learn than with the one-to-one help of an expert.

Alternatively, you could recruit the aid of such an expert to your home, or attend specialised courses part-time in colleges and schools.

Below is a selection of clubs and training organisations which can offer such help. Why not make contact; it could be an inexpensive, effective way to a better understanding of what your PCW can do for you.

## Clubs

**York Amstrad Computer Club**  
Enterprise Social Club, 17 Numery Lane, York (address for meetings only)  
Enquiries: Simon Williams 0906 40164

**Scotwest.PCW**  
19, Porton Place, Old Greenock Road, Bishopton, Scotland  
Enquiries: Iain Lang 0505 863916

**Ground Floor User Group**  
Hohne Street, Hebden Bridge West Yorkshire  
Enquiries: Jac Campbell 0422 844991

**Retford PCW User Group**  
14 Macllin Close, Tuxford, Nr Newark Nottinghamshire NG22 0JZ  
Enquiries: Paul Tew 0777 870038

**CP/M and MS DOS User's Group**  
43 Birkbeck Road, Wimbledon, London SW19 8NZ  
Enquiries: David Neshitt 081 543 0824

**Hampshire PCW User's Group**  
Unit 5, Cable Street, Northam, Southampton, Hampshire (address for meetings only)  
Enquiries: Paul Day (above address)

**Hereford Computer Club**  
18 Church Street, Hereford Herefordshire HR1 2LR  
Enquiries: David Rose 0432 267123

**Teesside Amstrad User Group**  
8 Knayton Grove, Greenvale, Stockton-on-Tees, Cleveland TS19 7RW  
Enquiries: Gladys Baker 0642 580018

**M25 User Group**  
58 Islip Gardeus, Northolt Middlesex UB5 5BY  
Enquiries: Tony Brown 081 841 3666

**Littlemore Amstrad PCW User Group**  
Peers School (Adult Education Centre), Littlemore, Oxford  
Enquiries: R G Hughes 0865 242720

**The Worldwide Amstrad Computer Club (WACCI)**  
9 South Close Twickenham TW2 5JE  
Enquiries: Steve Williams (see above)

## Training

**Banna Word Processing**  
29 New Bond Street, London W1Y 9HD  
Subjects: Loco 1 & 2, SuperCalc, dBase II, SuperCalc 2  
Enquiries: 071 493 3336

**Computer Training Centres UK Ltd**  
Exchange Buildings, Upper Hinton Road, Bournemouth BH1 2HH  
Enquiries: 0202 299676

**Dynamic Sales and Training**  
47 Goldsworth Road, Woking, Surrey  
Subjects: LocoScript 1 & 2, dBase, dBase II, SuperCalc 2  
Enquiries: 0483 756914

**Headline Communication Ltd**  
PO Box 22, Hereford HR4 8UW  
Subjects: LocoScript 1 & 2, CP/M, dBase II, SuperCalc 2  
Enquiries: 0432 271598

**Horsham Office Skills Training**  
Unit 2, 24 London Road, Horsham, West Sussex RH12 1AY  
Subjects: LocoScript 1 & 2, Wordstar  
Enquiries: 0403 211440

**John S Blandford**  
15 St Albans Road, Sandridge, St Albans, Herts AL4 9LA

Subjects: LocoScript 1 & 2, LocoMail, Mallard BASIC  
Enquiries: 0727 59913

**Linkom Training**  
32 Hill Street, Totterdown, Bristol  
Subjects: LocoScript 1 & 2, Sage Accounts  
Enquiries: 0270 717435

**No Hassle Computing**  
36 Tantallon Road, Balham, London SW12 8DG  
Subjects: LocoScript 1 & 2, SuperCalc, Cracker, Masterfile 8000  
Enquiries: 081 675 3139

**Molesley Education**  
Flat 3, 10, Matham Road, East Molesley  
Subjects: LocoScript 1 & 2, Loco PC  
Enquiries: 081 941 1364

**Office International**  
247-257 Euston Road, London NW1 2HY  
Subjects: LocoScript 1 & 2, Cardbox, NewWord, SuperCalc 2, Sage Accounts, LocoMail  
Enquiries: 071 387 9339

**Off the Shelf Training Services**  
5a West Street, Bognor Regis, West Sussex, PO21 1UB  
Subjects: LocoScript 1 & 2, LocoMail  
Enquiries: 0243 827778

**Rodesign**  
195 Milwards, Harlow, Essex CM19 4SJ  
Subjects: Micro Design, ProScan  
Enquiries: 0279 444313

**Victoria College**  
13 Dalton Square, Lancaster, LA1 1PL  
Subjects: Loco 1 & 2, SuperCalc, dBase, WardStar, Sage Accounts, Stap Press  
Enquiries: 0524 33996

**Wetherby Office Training**  
Cambridge House, 39 Cambridge St., Wellingborough, Northants NN8 1DW  
Subjects: Loco 1 & 2, dBase, SuperCalc 2  
Enquiries: 0933 222400

**Wetherby Price Training**  
30 New Canal, Salisbury, Wiltshire  
Subjects: LocoScript 1 & 2, CP/M, Sage Accounts  
Enquiries: 0722 24005

## Stop Press!

The latest training centres!

**Fields Easy Computer Training**  
16, Moyclare Park Baldoyle, Dublin 13 Ireland  
Subjects: Loco 2, Loco PC, Micro Design, Sage Accounts, Money Manager  
Contact: 088 561291

**Computer Services (Kent)**  
2 Church Road Business Centre, Sittingbourne, Kent ME10 3RS.  
Subjects: Loco 2, LocoFile, LocoMail, SuperCalc 2, Money Manager, MicroDesign.  
Contact: 0795 421732

**Westwind Computer Education Centre**  
13b Church Street, Wellington, Telford  
Subjects: Loco 2, LocoMail, Protext, SuperCalc 2, Masterfile, dBase 2  
Contact: 0952 56573

**Electric Words**  
232 Arbroath Road Dundee DD4 7SB  
Subjects: Loco 1 & 2, Loco PC  
Contact: 0382 462640

# Tipoffs

## Mayday! Mayday!

LocoScript giving you the cold shoulder? Things looking gloomy in BASIC? Does CP/M put the wind up you? Your PCW summer starts here! So don't just call Mayday, come to Tipoffs. In the following pages we put some sunshine into LocoScript, LocoMail and LocoFile, and give you some hot tips in BASIC and CP/M.

Niels Ege of Gentofte in Denmark will have a sunny smile this month - he's getting the Tipoffs cheque for £30 for his bright ideas on LocoScript, including one that reverses the screen for those glaring summer days. So if you know any tips, send them to us at Tipoffs, 8000 Plus, 30 Monmouth St, Bath BA1 2XF, you could win hard cash. What's more, it's Freepost!

### Get organised

Is it possible to transfer data between a PCW8256 and a Sharp ZQ5200 organiser, and other organisers in the Sharp IQ range? Graham Devenish, Hove, E Sussex

8000 Plus: A good question - can anyone out there help?

### Wide boy

How can I make a BASIC listing print out only (say) 80 characters wide when using LLIST? My PCW 9512 insists on making them 132 wide. Ken Robinson, Cambridge Cambs

8000 Plus: Just type the following line in BASIC at any time:  
`!print chr$(27)+"@"+chr$(27)+"Q"+chr$(80), [RETURN]`  
and from then on any LLISTs will be confined to a right margin of 80. You can use any other reasonable figure apart from 80. The equivalent command for left margin is similar, with I (lower-case letter I) instead of Q.

This works on 8256s and 8512s too, by the way.

### Animated idea

I have redesigned some characters in BASIC (following the tip in March's issue) and now want to animate them so they move around the screen. How is this done?

Laurence Pawling, Huntingdon, Cambs

8000 Plus: There's no easy way of doing it properly. (Some machines such as the Commodore Amiga have a special 'blitter' chip precisely to handle this kind of animation).

You can do crude 'animation' by printing the character at a certain position, then printing a space at that

position and printing the character in an adjacent position.

If you have a line like this near the start of your program

```
10 DEF FNat$(x,y)=CHR$(27)+"Y"+CHR$(x+32)+CHR$(y+32)
```

then thereafter, a line like  
`1000 PRINT FNat$(3,24);"o";`  
will print a letter o at the fourth row down and the twenty-fifth column across. (That's because the top left square is counted as the noughtth row and noughtth column, or (0,0). The top right square is (0,89), the bottom left is (30,0), and bottom right (30,89)).

### Roll call

Are you going off your roller? Perhaps it's because the printer roller of your PCW8256/8512 is so smooth it won't pull the paper any more. Here's what to do.

You need a sheet of fine wet and dry paper as used on car paintwork, a clean cloth, and some white spirit.

1. Disconnect the printer cables from the monitor.
2. Remove the front cover and the ribbon cassette.
3. Remove the print head - it should pull off.
4. Remove the paper guide from the back.
5. Put the printer bail bar back as in loading paper.
6. Stand the printer on a table with the back on the table and front side leaning against the wall. Block it at the bottom to stop it slipping.
7. Fasten the print head with sticky tape to keep it out the way. The roller is now fully exposed.
8. Take a sheet of A4 paper and cut it to the exact size to fit the paper feed slot, under the roller but not into the pinch rollers. Secure the paper with sticky tape at the sides to hold it in place.
9. Cut a strip about the width of your forefinger from the wet and dry sheet, then with the strip under your fingertip, rub the roller from one end to the other. Rub only the surface facing you, not the top.
10. You'll notice black dust falling onto the paper you inserted, and where you have rubbed, the glazed look of the roller has gone. Wipe the deglazed area with the cloth.
11. Turn the roller over a little at a time until you have been right round. Don't forget to wipe each time to prevent dust going onto the pinch rollers at the back. When finished remove the paper with the black dust and discard it.
12. The roller should be nice and matt. Lay the printer down flat and wipe the roller with some clean white spirit and dry. If a small amount of rubber dust goes down into the printer it won't do any harm.
13. Reassemble the parts and reconnect.
14. Pass a couple of sheets of rough paper to remove any residual dust. Your roller should now pull paper again.

George Bradley, Camberley, Surrey

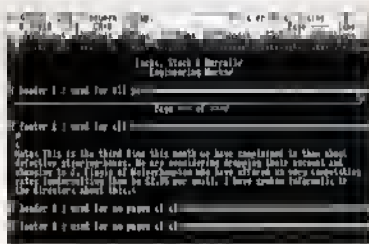
### Comment piece

While editing a LocoScript document, you can edit the headers at any time by pressing [F1] [ENTER] (or, in LocoScript 1, [F7] [ENTER]). Normally header 2 and footer 2 are used 'for no pages at all', meaning they won't print anywhere, but you can still enter any amount of text into them. [EXIT] returns to the main document.

Possible applications for this, apart from headers, include:

1. Keeping a record of dates when the document was edited or updated - useful for name and address lists, or financial documents.
2. Comments that you don't want printed - a note to yourself reminding you of telephone conversations preceding a confirmatory letter, perhaps, or an explanation putting that threatening letter to a debtor in context.
3. A list of cross-reference documents on the same or other discs.

Ian Chisnall, Bolton, Lancs



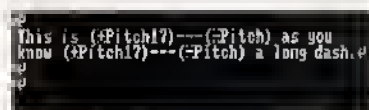
Header and Footer no. 2 can be good places to secrete information in a document that you don't want printed, such as the background to a business letter

### Dash it again

A dash of any length, as opposed to a hyphen, can be obtained easily on a PCW9512's daisywheel printer. Just press [+]`p17` [ENTER] and any number of dashes, and end with [.]p (this assumes you're working with a standard 10/12 pitch daisywheel).

The result forms a continuous dash. If you are working in 12 pitch, the printed dash is about two-thirds of the length it appears on screen. You can then save the dashes as phrases to speed things up when you want to use them in future documents.

Kenneth Eades, Coventry, W Mids



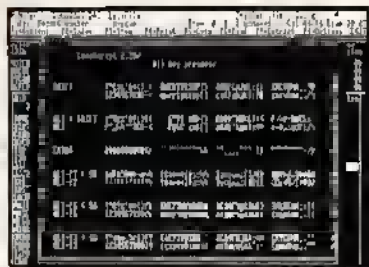
By changing pitch you can create dashes of any length on a 10/12 pitch daisywheel printer very easily...

This is — as you know — a long dash.

... and they print out about two-thirds of the apparent length on screen



## Chart topper



Can't remember what key combination produces that obscure LocoScript character or accent you're after?

LocoFile owners can make up this key chart for instant reference any time

LocoScript 2 has a vast range of characters and symbols that can be printed, but it's not always easy remembering how to obtain them from the keyboard.

However, if you have LocoFile, there is a simple way to have a chart of all the keypresses within easy reach when it is most needed: when you are in the middle of editing a document. Basically, you just create a one-record,

one-item LocoFile data file which is copied automatically to the M drive from your start-of-day disc, and is always available for lookup instantly. Here's how to set it up.

1. From the disc manager press [F1], select 'Create LocoFile data' and press [ENTER].
2. Press the [-] key to erase 'DATAFILE.000' and call your file 'CHARCHAR.DAT' (character chart data) instead and [ENTER].
3. Press [F5] and fill in the following details: card width 74 [ENTER]; card height 27 [ENTER]; and [ENTER] again to leave the menu.
4. Press [F3] and [ENTER]. Don't bother to name the item, but for 'item width' and 'item height' again enter 74 and 27 respectively. Set both 'column' and 'line' to 1. [ENTER] and [EXIT].
5. You are now ready to enter the details of your key press chart. Simply enter all the combinations of shifted and unshifted characters across the whole keyboard in various groups, each group being the result of using

[EXTRA] or [ALT] or the super-shift states of [SHIFT] [ALT] [F1] etc. (See the illustration).

6. When you have finished, press [EXIT] to leave LocoFile.

7. Copy the file CHARCHAR.DAT to any group of your startup disc. Now, whenever you start up, the file CHARCHAR.DAT is copied to the memory for you automatically.

Now, suppose you are editing a document and can't remember which key combination produces a certain character. Just press [F1] r [ENTER] and you go to the disc manager; then move the cursor over CHARCHAR.DAT and [ENTER] [ENTER], and your key press chart appears on screen. To get back to the document you were editing, simply press [EXIT].

To use the chart again later in the same document just press [F1] r followed by [ENTER].

Niels Ege,  
Gentofte, Denmark

## High fun

An alternative to normal underlining in LocoScript is to underline with hyphens. This can be effective for headings which are to stand out from text below which may contain several underlined words.

For example, to hyphen-underline the word "Heading", type:  
Heading. [RETURN]  
[+], b, [+], sr, [RETURN]  
----- [-], sr, [-], b, [RETURN]

This can be automated by setting up a phrase. Move the cursor to the first [+]**Bold** command on screen and press [COPY], then move it to the final [RETURN], and press [COPY] again, followed by .h,. From now until you switch off, [PASTE].h, produces that hyphen underlining; just edit it to the correct length for the heading.  
A Cooklin, London N3



This simple routine on a PCW9512 produces a smart underline effect...

A. TERMS OF ABUSE	
1. Imputing foolishness	
1.1 Idiot	Suggests impairment of men
1.2 Twit	Affectionate term suggesti

...that is a more prominent alternative to normal underlining. Very good for multi-layered headings.

## Graphic point

I have devised a way of printing out different lines, intersections and graphic blocks that are available from within LocoScript 2 on 24-pin printers with Epson LQ-2500 or IBM Proprinter X24 emulation. It uses the CharKit program on Locomotive's Printer Drivers disc. Examples are below.

Alan Clegg, Guildford, Surrey

*8000 Plus: The process is quite long, so if anyone wants to see how it's done, send us an aae marked 'LocoScript graphics', and we'll send a photocopy. Remember this only works if you have a 24-pin printer, and doesn't apply to the one supplied with the PCW.*

## One-track mouse

My mouse has suddenly started working only up and down the page and not horizontally. What is the problem?  
Mark W Annison, Watford, Herts

*8000 Plus: The contacts that run against the trackball are probably gunged up. Look at the bottom of your mouse - there should be a retaining ring that keeps the trackball in. Just push it in and rotate it and it should drop out. Take the ball out. You'll see some tiny metal rollers inside; these rub against the ball and detect movement in various directions. Just rub them gently with a soft cloth or fingernail to remove any gunge on them - however clean you keep your desktop or mouse mat, that grey jam gets in from somewhere! When they're shiny clean, just pop the ball back in, click the retaining ring back on and your mouse should be running about freely again.*

## Part work

Is it possible to type in part of a listing in BASIC, save it, and return to type in more at a later stage?

Mrs M Grallon, Salford, Lancs

*8000 Plus: Yes. To start a new listing, switch on your PCW and insert your CPM disc. When the A> appears, type basic [RETURN]. When the Ok appears, start typing in the listing line by line. End each line with [RETURN]. To edit a line, type edit 160 or whatever the line number is and use the cursors and delete keys to amend it.*

*To see what you've typed so far, type list [RETURN].*

*To save what you've typed so far, think of a name of no more than eight letters - say you decide on PROGRAM. Now type save "a:program" [RETURN] and your work is saved on to the A disc*

*(you can save onto B discs or the M drive by replacing 'a:' with 'b:' or 'm:' in that command). You can now carry on adding more lines if you like, and saving again. All the lines you typed since starting up are saved, not just the ones you typed since last saving.*

*To load a listing you've saved on disc, switch on the PCW and insert your CPM disc. At the A> prompt, type basic [RETURN]. When the Ok appears, insert the disc with the program on it and type load "a:program" [RETURN] (or whatever name you saved it under).*

*To see what lines it contains, type list [RETURN]. You can now add lines and save the listing as above.*

*To run the program, just load it and type run [RETURN].*

## Cheque out

How can I set up my PCW to print cheques? I'm sure this would be useful for PCW users whose ability to write is affected.  
R Salomon, Quedgely, Gloucestershire

*8000 Plus: That's a tricky one - does anyone have a solution?*

## Cee you

Is there a way of transferring a Ceefax page from my teletext TV (with SCART socket) to my PCW8256 and then to a printer?  
Andrew Gibbons, London, SW1

*8000 Plus: I suppose you could do it by videoing the Ceefax page, turning that into an image on disc with a digitiser (such as Rombo's 'Vidi PCW' or Electric Studio's digitiser), reading that image into a desktop publisher such as Micro Design, Stop Press etc., and then printing it out. The problem would be that you'd only have a graphic image, not text, so wouldn't be able to use the text in a word processor. Unless anyone can think of a better idea?*





## PC to PCW

In Tipoffs ('Transfer Request', March 1991) it was asserted that when transferring files from a PCW to a PC, dBase III will use dBase II files without any amendment.

This does not apply to command files. Makers Ashton-Tate changed some of the uses of commands after dBase II: for example *erase* clears the screen on dBase II; on III it erases files! Similarly, the hash function for record number was replaced by the function *rnval()*; a similar fate befell *!* and *\$*.

However, SuperCalc 4 can use SuperCalc 2 files because these are completely upward compatible. Where the writers made changes, they left the original function available too. So, in SuperCalc 4, to execute a macro the manual says use */Macro eXecute*. Not necessary! Just use */X* as in SuperCalc 2.

Incidentally, */Replente* doesn't appear on the SC4 menu, but it does work - give it a go!

C Kellers.

Tunbridge Wells, Kent

## Question time

I have just purchased a PCW 9512.

1) I'd like a printer for graphics. What are the most popular models and how much do they cost?

2) I bought an AMX mouse and interface from a PCW 8512 owner. Can I use this on the PCW 9512?

Neil McDonald, Bridge of Don, Aberdeenshire

**8000 Plus:** 1) The Star LC-10 (approximately £150 from mail order advertisements in 8000 Plus) is a good budget buy

2) Yes you can



The Star LC-10 printer, one of many external printers that are useful for graphics for 9512

Once you've gone through the slog of entering the LocoMail program, using it is a doddle - just enter your message. This says 'Large letters' believe it or not - it looks like nothing on screen, but just wait for the printout

```
(+LSpace0)(CENtre)*(+Mail)lin2:baR(-Mail)|RETURN|(CENtre)*(+Pitch15)*(+Pitch17)(+Mail)lin2:(-Mail)*|RETURN|(CENtre)*(+Pitch12)*(+Pitch17)(+Mail)lin2:(-Mail)|RETURN|(+Mail)baL(-Mail)(+LSpace1)(CENtre)*(+Double)(+Mail)lin3(-Mail)(+Pitch15)*(+Pitch17)(-Double)(+Mail)baR(-Mail)|RETURN|(+Mail)baL(-Mail)
```

## Discussions

We read a lot about the importance of making backup copies of disc. I have a few questions

1. Have new discs an unlimited shelf-life?
2. How do you know when a disc has failed?
3. Can you recycle failed discs?

E Nickson, London W3

**8000 Plus:** The chances of a disc failing are roughly proportional to the amount of use they get - it seems to be the drive head itself that causes failure eventually. To answer your questions, 1. No idea, but I've formatted five-year old discs and they've worked fine. 2. Because error messages come on the screen like 'Track 1 Sector 4 data error' and your disc can't be read even if you keep trying two or three times. 3. I've never been able to reformat a failed disc because the formatting program stops at the data error; you could always try contacting Dave the Disc Doctor on (089238) 5974 for help.

## Vital addresses

To reverse the screen in LocoScript 2.28, use *SID.COM* to change the byte at 029B from 40 to C0. This makes it black-on-green instead of green-on-black. To remove the bleep in LocoScript 2.28, use *SID.COM* to change the byte at 5C61 from 0B to 0C. This makes it easier on the ear!

Niels Ege, Gentofte, Denmark

**8000 Plus:** Follow the steps in Tipoffs in issue 53, p71 but don't type a double quote mark (") (3rd col, 2nd para) before typing the substituting text (i.e. here, C0 and 0C).

## Key facts (again)

In BASIC you can test for keypresses entered by the user with a line such as *1000 a\$=input\$(1): if a\$=chr\$(17) then print "you pressed [f1]"* which tests for the pressing of [f1], because the [f1] key returns the code 17. What codes in BASIC are returned similarly when you press the other keys?

Stuart Fyles, Ashford, Kent

**8000 Plus:** We published a list back in November; here's an updated and extended version.

a-z	97-122
A-Z	65-90
0-9	48-57
RETURN	13
ENTER	13
EXIT	27
TAB	9
[+]	22
[.]	28
DEL  right	7
DEL  left	127
CAN	8
CUT	21
COPY	23
PASTE	23
FIND/EXCH	29
LINE/EOL	2
RELAY	18
up	31
down	30
right	1
left	6
[f1/f2]	26
[f3/f4]	17
[f5/f6]	19*
[f7/f8]	16
STOP	3*

\* These keys normally don't return these codes; [f5] temporarily stops an

operation, to be resumed by [f3], while [STOP] stops the program. If however you include the line *1 OPTION RUN* at the top of your program, then the keys return the codes given here instead of their stopping functions. This is a way of preventing [STOP] from 'breaking into' a program. Note that [DOC], [PARA] etc. don't return any codes normally. However, you can make them (or any other key) return code you like. Suppose you want [PARA] to return the code 226 (i.e. the character ' and [f2] the character é (code 226).

First create a short file called *KEYS* consisting of the following lines:  
 02 S " ^225"  
 04 N " ^226"  
 - you can do this quickly as follows. Run up CP/M and with a CP/M copy disc in the drive, type at the A> *pip in:keys=con:|RETURN|* then type the two lines. If you make a mistake start again. That ^ is [EXTRA]u. End each line with [RETURN] then [ALT]j. End the file with [ALT]z. Now at the A> type *setkeys in:keys|RETURN|* and when you go into BASIC now you should find that [f2] returns the letter é and the code 225, and [PARA] the letter i and the code 226. You can experiment with different assignments in *KEYS*. To explain the two lines given above, the key [f1/f2] is associated with the number 02 and the [PARA] key with 04 - these keyboard assignments are listed in your CP/M manual; see the index under 'keyboard redefining'. The S means shifted, the N normal; A would mean [ALT], E [EXTRA] and SA [SHIFT] [ALT].

## Sticky problem

I've recently converted from LocoScript to Protext for my long documents, and very nice too. But the one thing I miss from LocoScript is the 'sticky shift' ability, where you can press [EXTRA] (or [ALT] or [SHIFT]) and then a letter to obtain an effect with same finger, without having to press them simultaneously. Can Protext be made to do this?

Martin Jameson, Basford, Nottingham

**8000 Plus:** Not as far as I know - though I would love to know if anyone can do it.

## Drop me a line

I am writing a BASIC program and want to send only certain lines of the listing to the printer. How can I do this? Roy Jukes, Walsall, West Midlands

**8000 Plus:** To print just lines 100 to 150 inclusive, then with the program loaded type *LLIST 100-150* followed by [RETURN].

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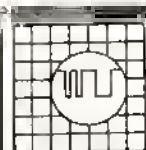
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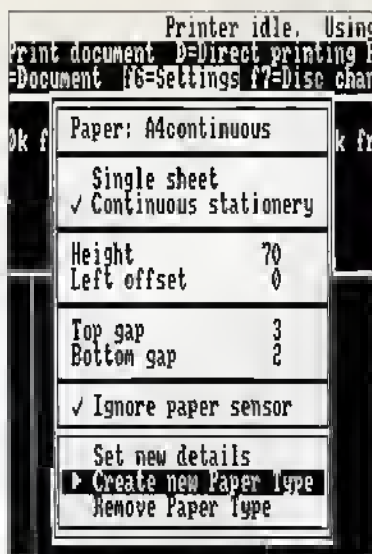
## A4isms

It is possible to obtain A4 continuous paper. But how do you set up LocoScript to accept it instead of the 11 inch paper it expects under continuous printing?

John Graham, Blackburn, Lancs

**8000 Plus:** In LocoScript 1: In the disc manager, press [PTR] and then [F1] 'Options'. Cursor down to 'continuous printing' and set it to be ticked by pressing [+]. Cursor to 'form length' and set it to 70 by typing 70 [ENTER]. Set the gap to be 5 similarly. Press [EXIT]; from now on printing will fit on A4 continuous paper. In a document to be printed on this paper, edit the header by pressing [F7] [ENTER] [F7] [F7] and setting the page length to 70 in the 'page size' menu that appears. [EXIT] and [ENTER] back to into the main document.

In LocoScript 2: In the disc manager, press [F6] 'Settings'. Cursor to 'paper type' and [ENTER]. From the list that appears, move over A4 and [ENTER]. Alter the name from A4 to 'A4continuous' by typing the extra letters onto the name and pressing [ENTER]. Alter to 'continuous' from 'single sheet' by moving over it and pressing [+]. Set the top gap to 3 and the bottom to 2 by typing those figures in the appropriate place and pressing [ENTER]. Move down to 'create new paper type' and [ENTER]. Write the new settings to your startup disc.



Setting LocoScript 2 to print out on A4 continuous paper involves setting up a new paper type as above; then you can set documents to print out in this size

Now, when you create a document that is to be printed on A4 continuous paper, go into document setup (press [F1] [ENTER] while editing) and press [F5] 'Page'. Select 'Paper type' and [ENTER]. The available paper types are listed; choose 'A4continuous' and [ENTER] and [EXIT] back to the main document. The document will automatically print out on the right paper now.

## Printing problems

I recently bought an Amstrad LQ5000 printer. I have no difficulty making it work with LocoScript on my PCW8512, but cannot get it to print output from Mini Office, the Cracker spreadsheet or Money Manager even though I have set up the PCW to print on the external printer using DEVICE.COM. What is going wrong?

F Opie,  
Truro, Cornwall

**8000 Plus:** It sounds as though you're doing the right thing, but just to check, here's the general procedure for setting up a CP/M program to print on your external printer.

Start up CP/M and at the A> prompt insert (a copy of) slide 3 of your CP/M master disc. Type device list:=cen. You should get a reply listing the driver, the bottom line of which should read LST:=CEN.

Test that output is going to the external printer by typing [ALT] p (the PCW beeps) and then a couple of random words. These words should be echoed to the printer. Stop this echoing by typing [ALT] p again (the PCW doesn't beep this time).

Any program you now choose to run should, in principle, print out on the external printer.

However, some programs are designed to ignore any settings you

have made in CP/M, and will just print on the built-in printer anyway.

Here is a way of getting them to print out on the external printer - eventually! Run up CP/M. Insert (a copy of) slide 3 of your CP/M master disc. Type in put printer output to file B:output [RETURN].

(On a PCW8256 you are now prompted to change the disc in the A drive - put in the disc with whatever program you want to run).

Now run Mini Office or whatever program you want to use and leave the disc in the B drive permanently. When you print something out nothing will happen; in fact this output is being silently diverted to a file on the B disc called B:OUTPUT.

When you leave Mini Office for CP/M and the A> prompt reappears, press [SHIFT] [EXTRA] [EXIT] and start up LocoScript. When the disc manager appears, insert the disc with OUTPUT on it. Create a new document and press [F1] or [F7] to 'insert text', and back in the disc manager cursor over OUTPUT and insert it.

The contents - that is, the printer output that never made it to the printer from Mini Office - are inserted into the new document.

Now you can print it out in LocoScript. It's a bit of a long way round, but it does solve the problem!

## Colour bar

I recently bought Fun School 3 for my son to use on my 9512. He asks me why the 9512 can't produce coloured pictures as on the illustration on the box. Can the PCW be modified so we can get coloured pictures?

Alan Tyrrell, South Shields, Tyne & Wear

**8000 Plus:** No. However, I remember the BBC programme "Tomorrow's World" in the late 1960s demonstrated that it was possible to produce (albeit rather dim and washed-out) colour effects on a black and white TV set by ultraviolet flashing black and white images, different rates producing different colours. (No, this is not a bit April fool). So maybe it is theoretically possible to display colours; but it's not a practical proposition.

## Letters from France

I recently bought a French daisywheel in France for my PCW9512 for my daughters who are studying French at university. I have set up the computer for the Swiss-French daisywheel but the print doesn't come out properly. A prints as Q and vice versa, or becomes a cumm and 2 becomes u. Am I doing something wrong? Do I need some more software?

Joe Glover, Ormskirk, Merseyside

**8000 Plus:** Simple: the daisywheel, being French, is designed for use on French keyboards which are laid out differently. Their top line is not QWERTY but AZERTY, and so on - hence the unexpected results.

Buy an "English" Swiss-French daisywheel from your local computer shop in England and that should print out OK when your PCW is set up for the Swiss-French daisy.

## Making B—— copies

How do I go about copying a 706K disc (i.e. in the B drive on a PCW8512) to make those vital backups?

Fr Hugh Murnaghan, London NW7

**8000 Plus:** If you have LocoScript 2 it's easy: just run up LocoScript, press [F2], select 'copy disc' and follow the prompts which you are given.

If you only have LocoScript 1 (the version that comes free with the PCW) this is what to do.

1. Switch on the PCW or reset it with [SHIFT] [EXTRA] [EXIT].
2. Insert the copy of your CP/M master disc.
3. When the A> prompt appears, type diskit [RETURN] and follow the very clearly explained prompts.

(If you just get DISKIT? in reply, all you have to do is insert your CP/M master disc and repeat step 3).

## Large letters

One of our club members at Hastings PCW Club has devised a program that will produce large letters on a dot matrix printer from within LocoScript 2. Details of the way it can be done are available with see from Hastings PCW Club, 7 Fulford Close, St Leonards on Sea, E Sussex TN38 0PN. A disc is for sale which has most of the hard work done already.

Joe Unwin, Hastings PCW Club, E Sussex

## Bad form

A tip in January said that DFORMD could format 178K discs, giving 5K extra over the normal 173K. But where can I find DFORMD?

J Richardson, Whaley Bridge, Derbys

**8000 Plus:** We forgot to say that it's part of the word processor Protext, by Amos Software.

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Perhaps the only reasonable criticism of the Amstrad PCW might be the standard of printed output. Upgrade your printer with this clever software utility. The program will provide you with 8 radically different and professional typesets giving your documents an original facelift. The ingenious thing about Supertype is that once you've established your favourite font on a disc, you won't even notice it working. You run your software in the normal way and everything will be the same except when you print out. Supertype II works with LocoScript (up to version 2.16) and ANY OTHER available CP/M software.

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## CLASSIC INVADERS

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## DGPAYROLL

Designed for the small business and handling payroll problems for up to 20 employees, this program is simple to use being completely menu-driven and supported by comprehensive documentation and worked examples. Suitable for hourly/weekly/fortnightly/monthly paid employees, the program handles all calculations for pay, SSP (sick pay), holiday pay, private pension schemes and full payroll analysis. Complete user-control of PAYE, NI and full payroll analysis. Complete user-control of PAYE, NI and full payroll analysis. Complete user-control of PAYE, NI and full payroll analysis.

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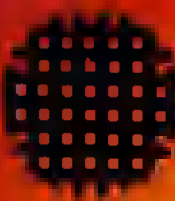
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## DATASTORE II

Looking for fast access to stored information? Want to create customised reports, making lists for printing labels, office and personal records, with NO technical knowledge? Researched, developed and written exclusively for the Amstrad PCW, this program will fully utilise the facilities of your computer. It makes an ideal partner for the novice or expert. Features include fast searching/sorting, calculation on fields, definable printing templates, ASCII export, 32 fields, 32,000 records, merging files and much more.

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# THE GOOD Software FILE

These pages provide a comprehensive guide to the Amstrad PCW software. Published in three monthly parts, this time it's the turn of Word Processors (including Desk Top Publishers), Accounts/Payroll packages and Utilities. We've set out to cover every important place of software we could lay our hands on, and to give you enough information to decide whether they are suitable for you.

All software will run on both the 9512 and the 8000 series machines, though the former's daisywheel printer cannot print graphical output.

The selection isn't comprehensive, but the software listed here represents what we think is the best of that currently available.

As well as a brief summary of what they do, the main Plus and Minus points for each program are listed — Pluses have a s by them, Minuses a t. Those we think are particularly noteworthy have a corner flash. Have fun window shopping!

## WORD PROCESSORS

Word processors are at the heart of the PCW world. The native package, of course, is LocoScript, but several others are available. Their main function, of course, is to handle text — but there are many features added to that which are individual to each program.

### PROTEXT/POCKET PROTEXT

£59.95/£29.95

Arnor • 0733 68909

The best CP/M wordprocessor. Very fast at moving around large files, and packed with features. Works with LocoScript keys too. Comes complete with a good spelling checker, a lightning fast word counter and a very powerful mailmerger. 'Pocket Protext' is a stripped down version — essentially the same word processing features, but no spell checker or mailmerger, and lacking one or two incidental facilities like two column printing. Specify which machine you have when buying.

#### PLUSES • MINUSES

- ▲ Complete with spelling checker/word counter
- ▲ Packed with features, eg. calculate facility, text editor for writing programs, 'print to screen' option etc.
- ▲ Lets you work with two documents at once
- ▲ You can do all of CP/M's functions without leaving Protext
- ▲ Very fast at moving around, doing exchanges and so on
- ▲ Extremely powerful and flexible mailmerger
- ▼ Forces you to learn another new set of control keys to use it
- ▼ Not as slick as LocoScript in its printer controls

### TASWORD 8000

£24.95 • Tasman • 0532 438301 • 8000's only

Simplifies document planning by minimising dependency on layout procedures. Allows quick and easy access to parts of text by existence of a marker system. The 'Search' and 'Find/Replace' facilities are simple to use, but very thorough.

#### PLUSES • MINUSES

- ▲ Easy to use
- ▲ Excellent mailmerge and label-printing ability

### EASY LABELLER

£29.95 (plus VAT) • M.A.S.S. • 0603 630768

Labelling program which stores your names and address list and will print out in label format selected items from it.

#### PLUSES • MINUSES

- ▲ Useful options like printing out current date
- ▲ Good search facilities
- ▲ Range of printing options will fit most stationery
- ▼ Data needs an entire disc to itself
- ▼ Data entry is slowed by constant returning to main menu

### LOCOSCRIPT 2

£29.95 (plus VAT) • Locomotive Software 0306 740606

As bundled with now 9512, the new version of everyone's first word processor. If you know how LocoScript 1 works, you'll have minimal relearning to do, and it puts right (almost) all the defects of the old version at a rock bottom price. Greek and Cyrillic alphabets, and even lets you define up to sixteen characters of your own design.

#### PLUSES • MINUSES

- ▲ 'Find page' command makes moving around faster
- ▲ Superb range of foreign accents and symbols available
- ▲ Can now drive daisywheel and other printers
- ▲ Has DISCKIT's formatting and copying built into it
- ▲ Now 300-page manual
- ▼ Mailmerger and spelling checker not included
- ▼ Inconvenient for regular CP/M users
- ▼ Still no word counter!
- ▼ Still slow at Find, Exchange and scrolling

### LOCOSPELL

£24.95 (plus VAT) • Locomotive • 0306 740606

The ultimate spelling checker for LocoScript users. It is run as a simple menu choice while you are editing a document normally, and you can check either an entire document or only a paragraph. When it finds an error, it suggests a correction. Reasonably fast, given LocoScript's inherent slowness.

#### PLUSES • MINUSES

- ▲ Runs totally from within LocoScript
- ▲ Can do small sections of a file
- ▲ Suggests alternatives for misspelled words
- ▲ Reformats the text as it makes corrections
- ▲ Provides the much-missed LocoScript word counter
- ▼ Can't remove spellings you don't like
- ▼ The manual gets bogged down sometimes
- ▼ Slow at scrolling the dictionary window

### LOCOMAIL

£29.95 (plus VAT) • Locomotive 0306 740606

As a mailmerger for LocoScript, it's difficult to see how anything could be better than this. It runs directly from LocoScript, and can process any LocoScript commands. Has many advanced features and is highly recommended for all LocoScript users.

#### PLUSES • MINUSES

- ▲ You don't have to run it from CP/M
- ▲ Can print any LocoScript text formatting commands
- ▲ Can automatically rejustify paragraphs after insertion
- ▲ Can insert numeric calculations into letters
- ▲ Can read data from non-LocoScript (ie. ASCII) files
- ▲ Large manual, with example files on disc
- ▲ Powerful selection procedures — like a database
- ▼ Need separate program to sort and filter addresses before a print run

### PROSPELL

£29.95 • Arnor • 0733 68909

A stand-alone spell checker for use with almost any wordprocessor that runs on the PCWs. Reads LocoScript, WordStar and ASCII files, and allows you to make corrections directly, view the context, change the dictionary etc. Specify which machine when buying.

#### PLUSES • MINUSES

- ▲ Checks LocoScript and WordStar documents directly
- ▲ Displays the context of a suspect word
- ▲ Can edit misspellings directly from Prospell
- ▲ Anagram and crossword solvers too
- ▼ Processes files of 15K or more in sections

### NEWWORD II

£60.83 (plus VAT) • NewStar Software • 0245 263017

NewWord exploits the WordStar market by doing the same job better. It uses much the same key commands as WordStar and will even edit documents prepared under WordStar. Comes with a spelling checker, and the on-screen help is slightly better than WordStar's, though the keystrokes are still as obscure.

#### PLUSES • MINUSES

- ▲ Does everything WordStar does, even reads WordStar files
- ▲ Spelling checker included
- ▲ Can un-erase words and lines
- ▲ Onscreen help better than WordStar's
- ▲ Full reformatting of text within mailmerger
- ▼ Weak on use of keyed and printer support
- ▼ Like WordStar, formatting troubles and obscure commands

### LABEL PRINTER

£25.00 • Microdraw • 0622 685481

Very similar program to Easy Labeller if not quite as powerful. Usual features of a labeller and you can store comments with each label's data.

#### PLUSES • MINUSES

- ▲ Menus simple — easy to get the program going
- ▲ Fast data entry
- ▲ Can store comments with each entry
- ▼ No import or export of data
- ▼ Data needs an entire disc to itself

### LOCOKEY

£14.95 (plus VAT) • Locomotive Software • 0306 740606

This successor to LocoChar is a keyboard customiser which means that any key can be made to produce any letter. The program will reproduce any one of the sixteen LocoChar-defined characters.

#### PLUSES • MINUSES

- ▲ Enables customisation to any distribution of keyboard letters
- ▲ Handles any combinations of accent and character
- ▲ Is fun and easy to use
- ▼ Will only be of limited use

### ANSIBLEINDEX PLUS

£34.95 • Ansible Information • 0672 62376

The upgraded version of the LocoScript document indexer. Type in your LocoScript document as normal highlighting the words to be indexed with a LocoScript (+RV) code. The program will then compile an alphabetical list of entries complete with the page number on

which they appear. A friendly, useful little package.

## PLUSES • MINUSES

- ▲ Don't need to convert files into ASCII files
- ▲ Word counter also included
- ▲ Runs with both LocoScript 1 and 2
- ▲ One index can be created for a series of documents
- ▲ Indexes can be edited on screen
- ▲ Index entries can be inverted, instead of 'million pre,' for example, 'pie, million.'

# ACCOUNTS

'Accounts' covers far more than just the balancing of income and outgoings. Many of the programs are specific to some application, and they range from the simple to the extremely complex, with prices to match.

## VITAL PROCESSOR SERIES

£39.95 each • Vital Software

0732 810330

### EASY TO USE

Series of three programs designed to help you look after your money and your assets. The Savings Processor is ideal for someone with a portfolio of stocks and shares; it tells you your 'net worth' like a balance sheet. The Insurance Processor helps you make an inventory of all your possessions and put a value on them, while the Income Processor helps you keep tabs on your incomes and outgoings.

## PLUSES • MINUSES

- ▲ Income Processor allows you to budget efficiently
- ▲ Insurance Processor can complete inventories room by room
- ▲ Savings Processor is a fast and efficient way of keeping track of share values
- ▼ You have to be keen to do all the research
- ▼ It can be time-consuming
- ▼ With the Income Processor, it's difficult getting all the information you need from the manual
- ▼ It's not always clear how some of the operations work

## DIGITA BUSINESS CONTROLLER

£69.95 • Digita International

0395 270273

### EASY TO USE

Not a full accounting system, but a very easy-to-use package with an excellent manual. Nominal ledger already set up and you can be up and running in minutes. No aged creditor/debtor lists can be produced. Now upgraded to include VAT handling procedures, so it's very good value for small business.

## PLUSES • MINUSES

- ▲ Delight to use with a very good manual
- ▲ You can get the system working in minutes
- ▲ Financial ratios can be included in reports
- ▼ No facility for producing aged debtors/creditors list

## BOOK-KEEPING AND ACCOUNTS

£69 (with invoicing, £80.50; with invoicing and stocks, £92) • Manx Tapes • 0624 813071

Recently updated suite of programs advocating a very traditional style of double-entry book-keeping. Useful demonstration disc also supplied with more than 200 example accounts.

## PLUSES • MINUSES

- ▲ Solid, traditional approach to double-entry book-keeping
- ▼ Program doesn't make full use of the PCW
- ▼ Screen prompts not always that helpful
- ▼ Written in BASIC, so prone to sluggishness

## MONEYWARE ACCOUNTS

£249.00 (plus VAT) • Compact Software Ltd

0628 777456

Another very large integrated package supplied on several discs and consisting of sales, purchase and nominal ledger together with invoicing. The package is available on much larger micros, and since the format in which data is produced is the same as on PCWs, the system is particularly suitable for users planning to upgrade their hardware at a later date.

## PLUSES • MINUSES

- ▲ Audit trails are an auditor's dream
- ▲ Data can be used in WordStar, Multiplan or SuperCalc 2
- ▲ Superb prepayment facility
- ▲ Can run a number of companies separately
- ▲ Easily transported to bigger computers

- ▼ Lots of disc swapping necessary
- ▼ Can be slow to use – it runs in Mollard Basic
- ▼ Errors in cash allocation routine and account code system

## M.A.P. INTEGRATED ACCOUNTS

£249+VAT • MAP Systems

061 624 5662

### POWERFUL

This is a very powerful package moved onto the PCW at a fraction of its cost on larger micros. The size makes it a little cumbersome to use, but apart from that there are very few significant problems. The integrated suite includes the same live modules as Camsoft, but they are supplied on four sides of disc, making it effectively impossible for the software to be run as an integrated system on an unexpanded 8256.

## PLUSES • MINUSES

- ▲ A very comprehensive and professional package
- ▲ Very good audit trails
- ▲ Sales/purchase ledgers can run over different periods
- ▲ Facility for handling prepayments and accruals
- ▲ Able to print full management accounts
- ▼ The size of the programs means lots of disc swapping
- ▼ All normal responses need to be in upper case

## SIMPLE ACCOUNTS II

£79.00 (plus VAT) • Cornix • 0234 219969

The perfect accounts package for the small business by virtue of its simplicity of operation, and the limitation of its features to the essentials. Features include a useful cross-reference facility to collate expenses on individual contracts. Very comprehensive VAT section.

## PLUSES • MINUSES

- ▲ Simple, easy-to-use program
- ▲ Can correct errors
- ▲ Keeps track of debtors and creditors
- ▲ Well-written manual
- ▲ Useful search facility

## CAMSOFT PSIL

£180.14+VAT • Cambrian Software • 0766 831878

Consists of five integrated packages: Sales, purchase and nominal ledgers, invoicing and stock control. In terms of sophistication it falls somewhere between the Sagesoft package and the larger systems from MAP and Compact. But it's easier to run than the larger packages since all the software can be squeezed into the M drive. Good package for a small company.

## PLUSES • MINUSES

- ▲ Already set up for 8256 or 8512
- ▲ No need for pre-printed stationery
- ▲ Excellent sort and search facilities
- ▲ Invoices shown on screen as you create them
- ▼ Constant need to input full five-digit account codes
- ▼ No final accounts reports available on nominal ledger
- ▼ No facility to run the ledgers in different accounting periods

## INBUSINESS

£160.00 • Cavalier Software • 049 264 1548

A comprehensive integrated package. Comprises 'Intact' accounts and 'Instock' stock control, available separately for £59.95 each. Well designed, easy to run and powerful enough for most businesses.

## PLUSES • MINUSES

- ▲ Other packages (eg 'Teledat' address book) can be added
- ▲ Comprehensive range of features when used as a package
- ▲ Sophisticated pricing and order features in Instock section
- ▲ Flexible accounts, traps most mistakes, useful summaries
- ▲ Interesting forward planning facility in stock control
- ▲ Manual gives you a confusing number of options

## SMALL BUSINESS ACCOUNTS

£60.83 (plus VAT) • NewStar • 0245 265017

Using the split-screen method, the prompt-driven program leads you through the hazards of double-entry book-keeping as painlessly as possible. Again, very useful demonstration files supplied with the program. It also handles VAT easily.

## PLUSES • MINUSES

- ▲ Excellent system of screen prompts
- ▲ Good demonstration files
- ▲ One of the easiest double-entry systems for the novice
- ▼ Manual is really for the PC

## SAGE POPULAR ACCOUNTS

£87 • Sagesoft • 091 2131555

An integrated accounts package consisting of purchase, sales and nominal ledgers. For another £50 you can buy Accounts Plus which also has invoicing and stock control. Aimed at small companies with the emphasis on ease of selling on. But a number of limitations, eg the package cannot cope too easily with rapidly increasing numbers of customers and suppliers.

## PLUSES • MINUSES

- ▲ Clean, tidy and logical screen layouts and menus
- ▲ Easy to set up and use with excellent documentation

- ▲ Good audit trails and VAT reports
- ▲ Can produce formatted trial balances
- ▼ Restrictive account numbering system
- ▼ Only single nominal ledger and VAT analysis per item
- ▼ Does not cater for settlement discounts
- ▼ Won't print remittance advice slips
- ▼ Cramped on 9512 printer – need 17 pitch daisywheel

## M.A.P. PAYROLL

£199+VAT • MAP Systems • 061 624 5662

## PLUSES • MINUSES

- ▲ Can amend and re-run at any stage (even after printing)
- ▲ Cash analysis is broken down into departments
- ▲ System prevents re-use or amendment of leavers
- ▲ Can hold up to 40 standard hourly and weekly wage rates
- ▼ No SSP calculation facility (but can record off amounts paid)
- ▼ Programs necessitate a lot of disc swapping
- ▼ No printed record of automatic tax code changes

## SAGESOFT POPULAR PAYROLL

£61 • Sagesoft • 091 2131555

## PLUSES • MINUSES

- ▲ Any or all employees payroll can be rerun at any stage
- ▲ Full pay history available for all employees and leavers
- ▲ Calculates average pay for holidays etc
- ▼ Very easy to install
- ▼ Limited number of additions/deductions
- ▼ Doesn't print a list of cheques
- ▼ No analysis of additions/deductions

## COMPACT MONEYWARE PAYROLL

£199.00 (plus VAT) • Compact Software Ltd

0628 777456

## PLUSES • MINUSES

- ▲ Supplied with test data
- ▲ Facility to change employees tax codes following budget
- ▲ Can run payroll for several companies
- ▲ Program available for PC compatibles – data transportable
- ▼ Must be run from the master discs
- ▼ Needs input form and check calculation for each employee
- ▼ Once payslips are printed nothing can be changed
- ▼ Most expensive payroll program

## CAMSOFT PAYROLL

£60+VAT • Cambrian Software • 0766 831878

## PLUSES • MINUSES

- ▲ Full payslip displayed on screen, any item can be amended
- ▲ Facility for freehand narrative on any payslip
- ▲ Uses M drive for programs to speed operation
- ▲ Built in on-screen help facility
- ▲ Search-sort routine for output to screen, printer or disc
- ▲ Uses alphanumeric employee codes
- ▼ Screen menus a bit untidy and sometimes difficult to follow
- ▼ No listing of cheques

## CHECK ACCOUNT TWO

£14.95 • Mulesoft • 0372 275053

Written specifically to keep track of personal household accounts. Can store the details of up to four different accounts per disc, records all withdrawals and deposits and will allow an inspection of the current state of any account at any time. It also reveals both the minimum and maximum figures to which the balance has either sunk or risen over previous or current months. Also incorporated are comprehensive interest-calculating options. A solid, competent package.

## PLUSES • MINUSES

- ▲ No double-entry book-keeping or VAT returns to wrestle with
- ▲ Very easy to use
- ▲ Carries last month's spending levels forward into this month
- ▲ Tiered interest rate option available

## EASI-ACCOUNTS SYSTEM

£23.95 • Arctan Computer Features 1 Foxwell Square, Southfields, Northampton NN3 5AT

Another PCW accounts package this time for the small business man or the very organised home user. Works on the traditional system of ledgers with up to 500 entries (or individual transactions) allowed per ledger.

## PLUSES • MINUSES

- ▲ Comprehensive List and Search facilities
- ▲ Manual assumes you know nothing about accounting and is, on the whole, well-written
- ▼ Not a particularly easy package to use
- ▼ You would have to be exceptionally well-organised to use it



## DESIGNER - for knitting, embroidery

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Moonstone 2 in 1 MSDOS/CPM transfer (new version).....£29.95

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## MONEY MANAGER PCW

£49.95 • Connect Software Ltd • 081 743 9792

This accounting package has been designed for individuals, small businesses and clubs – anyone who might find a larger accounting package daunting. The program concentrates on income and expenditure, each file covering a 12-month period with up to 500 entries per month.

### PLUSES • MINUSES

- ▲ Up to 20 different kinds of accounts are catered for
- ▲ Up to 50 transaction codes help categorise income and expenditure
- ▲ Needs little computer or accounting expertise
- ▲ Information can be displayed in the form of a bar or pie chart
- ▼ Too limited for bigger businesses
- ▼ Over-featured for domestic use

# UTILITIES

Utilities is a broad category, which tends to contain all the software that won't fit elsewhere. In practice, this leads to two main functions – programs aimed at unusual applications, and those which perform useful and varied 'housekeeping' tasks.

## 2 IN 1 (Version 2)

£29.95 • Moonstone Computing • 041 941 3120

A set of very useful utilities aimed mainly at PCW to PC/MSDOS file transfer. It also has the ability to manipulate PCW files and discs. Sometimes a little on the slow side (because of the different systems it is copying from and to), it is still an excellent way of carrying out the functions, and is the only package that collects all these functions under the one roof. On the other hand, the formatting, which comes with a verify option, is very fast. In addition, it is extremely easy to use, and very user friendly – with a number of features which make it far more memorable than the original CP/M commands.

Range of features	4/5	Ease of use	5/5
Documentation	4/5	Performance	5/5
8000 Plus Value Verdict			

### PLUSES • MINUSES

- ▲ Easy to use
- ▲ Formats very quickly
- ▲ Good documentation
- ▲ Not too expensive
- ▼ Files not displayed in alphabetical order
- ▼ Copying is slow

## XFORMAT2

£29.95 • Moonstone • 041 941 3120

A handy utility to provide more space on a disc. Space is created during disc formatting; the program is used in conjunction with CP/M, and gives extra room on both A & B drive discs.

### PLUSES • MINUSES

- ▲ 19k extra for A drive discs
- ▲ 78k extra for B drive discs
- ▲ 32 extra A drive entries
- ▲ Very cheap for the benefits provided
- ▼ Can't copy and format at the same time
- ▼ 4k minimum blocks in B drive

## FOREWORD

£44.95 • Software Imperative • 0225 425315

A text/ideas pre-processor, essential for anyone in the business of producing lengthy, structured pieces of work. You can build your document, moving and inserting blocks with just one key-press (no block delimiters required). Very fast wordcounts and Find and Replace searches of either 'hidden' or 'shown' text units. Drop down menus make usage very easy.

### PLUSES • MINUSES

- ▲ Quick and efficient and easy to use
- ▲ Versatile Save options
- ▲ Printout facility
- ▲ Works with 'foreground' option

## PCW TOOLKIT

£24.95 • Moonstone Computing • 041 941 3120

A user-friendly data recovery package for the PCW. Provided you can find the contents of the damaged file, roll out a new one, sector by sector, on M using PASTE.

### PLUSES • MINUSES

- ▲ Perfect for the complete novice
- ▲ Clear, confidence-boosting manual
- ▲ Can recover data varying in amounts from a few bytes to a complete disc.

## PRO-PERFORMER

£59.90 • Electromusic Research

0702 335747 • 8000s only

The only real musical add-on for the PCW. Easy to use software runs on CP/M, has a wide variety of powerful features and is icon-driven. Sophisticated recording facilities and the program will allow you to save compositions as tracks, songs or performances. Ideal for pop and classical musicians.

### PLUSES • MINUSES

- ▲ Icon-based screen
- ▲ Can record lines independently or in an arrangement
- ▲ Punch-in editing facilities
- ▲ Facility for slow recording and fast playback
- ▲ Step-time recording for strict tempo lines
- ▲ Tracks can be looped (made to repeat)
- ▼ Manual glosses over arrangements
- ▼ Can't edit notes individually
- ▼ No musical notation anywhere

## JOB ESTIMATING & PRODUCT COSTING

£99.90 (plus VAT) each

Cornix Software • 0243 219969

Both programs aim to provide help to small businesses by keeping track of costs. You break down the product you're costing or the job you're doing into a series of costing lines – recording quantity and price per component. Program analyses profit margins and can produce customer printouts.

### PLUSES • MINUSES

- ▲ Excellently-written manuals
- ▲ Simple and robust to use
- ▲ Changes in material costings instantly reflected in all quotes
- ▲ Neat way of doing on-the-spot quotes
- ▼ Only suitable for small to medium-sized businesses
- ▼ Can't add new components to a description

## TEMPDISC 8.2

£21.00 • Thurston Techniques

0395 277496 • 8512s only

Disc of ready-made templates to be used inside LocoScript.2. All you have to do is find the particular template to suit your requirements and then fill in the details. Vast selection of borders is excellent for personalising labels and envelopes.

### PLUSES • MINUSES

- ▲ Has included files to complement LocoMail's invoicing facilities
- ▲ Very easy to use
- ▲ Vast range of templates available
- ▲ Not so good if you don't like lots of visual trimmings

## BRAINSTORM

£29.99 • Brainstorm Software Ltd • 0895 677845

A new improved version, reconfigured for easier use on the PCW. Works as an 'ideas processor'; you throw your ideas in any order and then use the program to rearrange them and impose a structure.

### PLUSES • MINUSES

- ▲ Quick and efficient and easy to use
- ▲ Encourages structured thinking
- ▲ Versatile; many different editing facilities
- ▲ Results can be fed into a word processor for polishing up
- ▲ Namesakes must be exact matches
- ▼ Manual is on disc, so you can't consult while using BrainStorm unless you print it out

## SUPER-LINOEX

£14.95 • Festival Computing • 0274 613300

An indexer for LocoScript, which can provide not just the name, but also the 'Edit/Identify' description of the file. Works with CP/M files, too. Can import data into LocoFile.

### PLUSES • MINUSES

- ▲ Screen as well as printer output
- ▲ Can be turned into LocoFile data
- ▲ Easy to use, and flexible
- ▲ Various specific terms of cataloguing
- ▼ Documentation poor

## FORMS BOX COMPENDIUM

£19.95 • Disc Design • 0473 625471

Fully compatible with LocoScript 1 and 2, this disc provides 70 different kinds of forms for home and office use. You can either fill them in on the screen, save and print them out or print them out and fill them in later. A solid, no frills product.

### PLUSES • MINUSES

- ▲ Very easy to use
- ▼ Will only print out on A4 size paper

## POOLS MASTER

£19.95 • Intraset Ltd • 02572 76800

This program helps you select the numbers to cross on your pools coupon taking its recommendations on the recent form of each team or simply on the basis of sequence prediction (going on the numbers which have provided draws in the past).

### PLUSES • MINUSES

- ▲ Very easy to use
- ▲ More accurate than the newspaper pundits
- ▼ Entering form results from week to week is tedious

## LDcoFont I

£29.95 (plus VAT) • Locomotive Software (0306 740606) 8000s only

A selection of new fonts to help you break out of the standard LocoScript typeface. There's a very good selection of styles to choose from: 'handwritten' styles look very good as do the Copperplate and Script styles. The Roman end Standard fonts are more practical. The new characters are reproduced very well indeed. A further six fonts are available, including Old English and flowing script, on LocoFont II for £14.95.

### PLUSES • MINUSES

- ▲ Eight new fonts, one coming for free
- ▲ Each style supports all accents, characters, etc.
- ▲ Relatively cheap and easy to use
- ▲ Can break out of the one-pattern printout.
- ▼ Can't mix styles in one document
- ▼ Limitations of a 16 dot pattern means that the quality cannot be brilliant

## PS HEADINGS

£11.95 • Orb Systems • 081 690 8534

An updated version of the original product, with a major improvement in speed. A must for all Protext users who need to incorporate high quality large print for letter headings and so on. Facility to alter stylistic details such as shading, underlining and triple-strike printing.

### PLUSES • MINUSES

- ▲ Easy to use
- ▲ Range of styles
- ▲ Good manual
- ▼ Only one font available (although in two sizes)

## GILLIGAN'S GUIDE

£29.95 - 49.95 • NG Gilligan • 0629 56347

A geographic information program based on the Ordnance Survey system. Concentrates on a given area (usually 15 square miles); it will list all the places included in the map in alphabetical order with their grid references. Also gives you information about the sites and will locate them on the map. You can also interrogate the system so that it only gives you details and locations of sites of special interest.

### PLUSES • MINUSES

- ▲ A thorough, versatile and easy to use package
- ▲ System can be interrogated in a number of interesting ways
- ▲ Breaks sites down into areas of specific interest
- ▲ You can commission your own made-to-measure guides

## STAR TRACK+

£19.95 • Discovery Software • 081 455 9962

Update of earlier version. Fun and informative, the program allows you to plot on screen all the constellations (88 of them) and stars (about 600) recognised by today's astronomers, as well as (in the new version) the moon and planets. What is more, you can get the view from any point on the globe, and at any time from 1000 to 2999 AD. Lack of built-in printer option does seem a bit of a drawback, though.

### PLUSES • MINUSES

- ▲ Excellent manual with helpful practice exercises
- ▲ Very easy to use
- ▲ Cycle option transports you forward a month at a time so that you can chart the stars' progress
- ▲ Can change your position on the earth's surface
- ▼ No print option
- ▼ Screen display a little on the small side

## POCKET DATADATE

£24.95 • A4 Ideas • 0249 815082

An invaluable utility for those who crave date-related trivia. Fully operational under LocoScript 2, Pocket Datadate even prints 100x-sized text.

### PLUSES • MINUSES

- ▲ Program recently updated
- ▲ Very informative
- ▲ Ideal for quizmasters
- ▼ Only works with LocoScript 2
- ▼ Documentation currently on disc





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### Ansible Information

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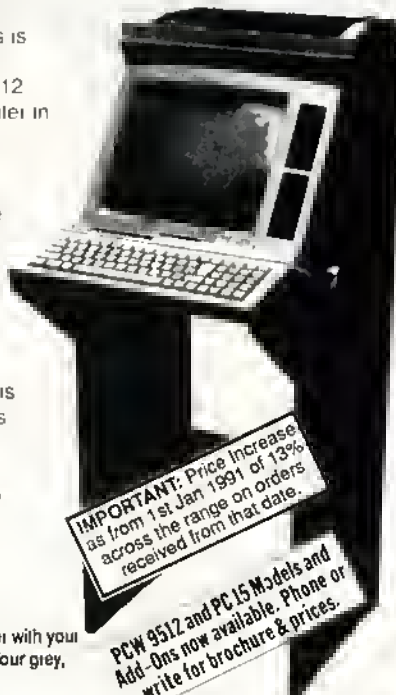
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## PCW SUPERDOS

£29.95 • Encyclosoft • 0270 811890

Fills the gap between the friendliness of LocoScript and sparsity of CP/M. Has the ability to copy multiple files at once, and can back up an entire directory.

### PLUSES • MINUSES

- ▲ Printable 'notepad' facility
- ▲ Makes CP/M less daunting to use
- ▼ Need to leave SuperDOS for some functions

## FACTOTUM

£14.95 • Tudor Systems • 0622 861775

The combination of LocoScript 2, LocoFile and LocoMail will give you access to this extremely useful catalogue of information. As well as a diary, incorporating special date reminders, there is an address and telephone list, and a tax planner.

### PLUSES • MINUSES

- ▲ Works from LocoScript
- ▲ Very efficient letters section
- ▲ Easy to use
- ▼ Poor presentation
- ▼ Won't work with an unexpanded 8256
- ▼ Assumes knowledge of LocoScript

## SUPERZAP

Public Domain • Various suppliers

A disc editor with a difference — one key commands taken from adequate means permit easy operation. Superzap allows you to examine both the structure and contents of the M Drive. Lack of print function is an irritating pitfall. This command is even disabled in CP/M.

### PLUSES • MINUSES

- ▲ Very easy to use
- ▲ Simple one key commands
- ▲ Menu driven
- ▲ Fast 'find' function
- ▼ No copy
- ▼ Numbers can only be entered in hex

## DATA DIARY

£16.95 • A4 Ideas • 0249 815082

More PCW-generated diary inserts for use at home or in the office. The program works from within LocoScript so you can make use of all LocoScript 2's text and style enhancements. Inserts include year to a page calendars, month at a glance planners and page a day formats.

### PLUSES • MINUSES

- ▲ Buy it at any time of the year and you will be supplied with next 12 months' supply
- ▲ 2 versions available — for A4-size and Fitofax-size printers
- ▲ A solid, no-frills product that's easy to use

## INVESTOR II

£29.95 • B & B Software • 0240 242946

Excellent update of what was already a good program. Designed to record and analyse the ups and downs of up to 600 shares on the stock market. From the trends displayed by these the health of the whole market is calculated, and future moves predicted. Your own shares are included, of course, and given prominent treatment; you are given advice on what to do with them. An very good investment all round!

### PLUSES • MINUSES

- ▲ Records share-holdings, dividends and cash accounts
- ▲ Dividend printout for tax purposes
- ▲ Four methods of share price analysis
- ▼ Unique ability to calculate capital gains tax liability
- ▼ Graphs are small
- ▼ Minor shortcomings in manual

## PERSONAL TAX PLANNER

£24.95 • Digita International • 0395 270273

Simple program which asks you all the questions relevant to your year's tax affairs, and prepares your tax return claim (or bill). Can, for example, find out whether married couples would be better assessed separately or not. Personal Tax Planner is updated every year — look out for the most recent version following March's budget.

### PLUSES • MINUSES

- ▲ Simple to use
- ▲ Needs a minimum knowledge of the tax law
- ▲ Forces you to keep your tax details in one place
- ▼ Limited application — might only use it once a year
- ▼ Program updates (for a new allowance level) cost £10

## KNIFE PLUS

£19.95 • Hisoft • 0525 718181

An essential tool for retrieving data from corrupted discs.

Knife Plus will copy all uncorrupted sectors on to a fresh disc which you can then patch up without risking the original.

### PLUSES • MINUSES

- ▲ Copies all uncorrupted data from damaged discs
- ▲ If boot sector damaged, will copy good boot sector onto disc
- ▼ Requires some knowledge of basic disc structure
- ▼ Manual not written for beginners

## WISE ONE

£34.95 • Swallowsoft Publications • 0420 63793

An expert system — yes! Inpt rules and information and Wise One becomes an 'intelligent' program which can, for example, do simple diagnoses according to symptoms you type in.

### PLUSES • MINUSES

- ▲ Power to be genuinely useful
- ▲ Elementary arithmetic
- ▲ Help screens can be set up for the user
- ▼ Obscure way of writing rules — need programming instinct
- ▼ Manual dry and academic

## FLIPPER 2 PLUS

£29.95 • Software Imperative

0225 425315 • 9512/8512 only.

Can do everything the original Flipper did and more. You can now flip Mini Office and LocoFile and will have no problems with whatever version of LocoScript you're using.

### PLUSES • MINUSES

- ▲ Easier to install than its predecessor
- ▲ Can flip between environments in as little as 2 seconds
- ▲ Professionally-presented documentation
- ▲ Works with most CP/M programs, LocoScript and BASIC
- ▼ Still won't work with many self-loading games
- ▼ Be careful of state of printer and disc drives when flipping

## SUPER TYPE II

£14.95 • Digita International • 0395 270273

A program for users of LocoScript and CP/M programs, which modifies the fonts used by the PCW printer. SuperType has 4 'business' and 'novelty' fonts. It works by directly altering the relevant files for LocoScript or CP/M, so you only need run it once — after that, the new chosen font is available.

### PLUSES • MINUSES

- ▲ Once installed, you can totally forget it's there
- ▲ Genuinely useful range of fonts available
- ▲ All LocoScript's print size and style options still work
- ▼ You can't mix different fonts in the same document

## DAATAFAX

Basic version £29.95 (with Microfile £39.95/with mouse £69.95) • Kempston Data • 0234 855666

Used with personal ring-binder, it helps you keep track of names, addresses and appointments. Prints out data in a form that will fit the average organiser.

### PLUSES • MINUSES

- ▲ Flexible and easy to use; saves buying inserts
- ▼ Not very sophisticated, keeping it up to date is tedious

## DHCP 12-TRACK SEQUENCER

£45 • DHCP • 0440 61207

Add-on 'recording studio' for the PCW, consisting of MIDI interface and software. 12-track polyphonic capacity

### PLUSES • MINUSES

- ▲ Fun to use
- ▲ Can cope with quite advanced instruments
- ▲ Cheaper than its competitor
- ▲ Tracks can be bounced to enable several tracks to all be put into one
- ▲ Looping can start/end at any bar
- ▼ Manual is skimpy
- ▼ No editing possible without re-recording whole tracks

## DTP

Desk Top Publishing packages combine the manipulation of both text and graphics. In reality, they tend to concentrate on the development of pictures rather than text, simply because text can usually be imported from a word processor in an already finalised state, to have its

appearance rather than its content adjusted.

## THE COMPOSER'S PEN II

£87.33 (MusicPad £23.44) • Composit Software

0952 595436

A sophisticated program which allows you to write musical manuscripts, complete with time signatures, key signatures and any other notation you require. Changes to the manuscript can easily be accomplished, and it can even transpose music into different keys. A vital tool for the composer of every kind of music. MusicPad is the cut down version.

### PLUSES • MINUSES

- ▲ Good print quality
- ▲ Allows multi-part compositions
- ▲ Easy to use
- ▲ Complete range of musical notation
- ▲ Transposes from key to key
- ▼ Slow in use

## THE DESKTOP PUBLISHER

£81.95 (including mouse and interface) • Database

0625 859444

Tremendous value for money. Graphics and text boxes can be easily moved around and page layout is clear. You can edit text from within the program, using LocoScript-like commands to set bold and italics. Good range of fonts and graphics, too.

### PLUSES • MINUSES

- ▲ Text editor allows you to edit articles to fit the space easily
- ▲ Boxes and general layout easy to manipulate
- ▲ Works with three mice, but fine with the keyboard alone
- ▲ Good range of fonts and graphics, and you can design your own
- ▼ Can't fix size of text boxes — they expand to take the text
- ▼ Headlines can look a bit jagged

## MICRODESIGN II

£62.00 • Creative Technology • 0889 567160

The ultimate DTP package for sheer printout quality; Creative Technology have loaded words and graphics as being equally important, hence the program's 'integrated page processor' label. Runs on all three machines with high quality results.

### PLUSES • MINUSES

- ▲ Has full 24-pin printer compatibility
- ▲ Easy end to use
- ▲ Excellent text-editing facilities

## LATE EXTRA

£19.50 • Exemplar Designs • PO Box 683, Bath, BA1 1XU

A Stop Press add-on consisting of a collection of 11 fonts that cover the range of type styles and sizes needed to create a balanced page.

### PLUSES • MINUSES

- ▲ Good range of 11 complementary fonts
- ▲ Can adapt template for own use
- ▼ Time-consuming
- ▼ Text needs reducing for best results

## Next Month

The guide continues with the categories of DATABASES, EDUCATIONAL SOFTWARE, COMMUNICATIONS and PROGRAMMING LANGUAGES, to be followed the month after by SPREADSHEETS, GRAPHICS and GAMES. Then it's back to this month's topics again.

We intend to maintain this as THE authoritative guide to PCW software, so if you know of any significant omissions, please let us know.



### SPORTING TRIANGLES

From CDS Software. Recently reviewed by the 8000 Plus team and given a value verdict of 14/20. If you are a sports fan then it's a must. Even tougher than a Question of Sport, but when the going gets tough...

RRP £19.99

Our Price £14.99

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### TECHNICHE KEYBOARD

Excellent new 102 key keyboard for the PCW that really does make keying easier. 8000 PLUS were so impressed we got one ourselves! Not only does it feature a clear and clean design, but it feels so much more comfortable. And the price is well worth it

R.R.P. £90.85

OUR PRICE £79

Order no.8635

### EXPLOITING THE AMSTRAD PCW 9512

Written by John Campbell and Marion Pye, this book is aimed at the more experienced user of the 9512. 300 pages, packed with information on programs from Locoscript to Supercalc.2. Highly recommended by the 8000 PLUS team.

R.R.P. £14.95

OUR PRICE £13.45.

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### COPY HOLDER

A handy accessory, easy to fit, easy to use and easy to buy. Not only does it make typing easier but also keeps the desk tidy.

Just fill in the form.

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### FUN SCHOOL 3

The best-selling education package now available for the PCW. Separate packs for the under 5s, 5-7 yrs and over 7s. With 6 games in each pack and conforming to the National Curriculum: 8000+ Value Verdict 18/20

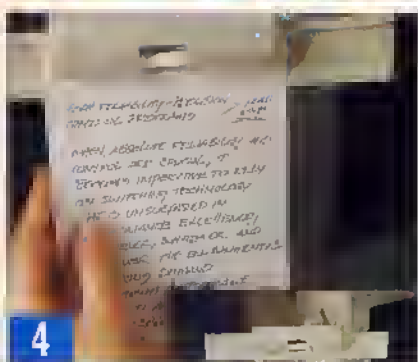
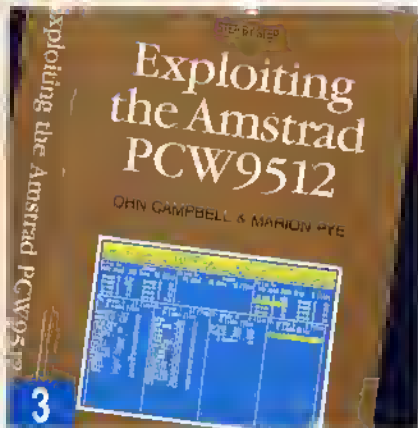
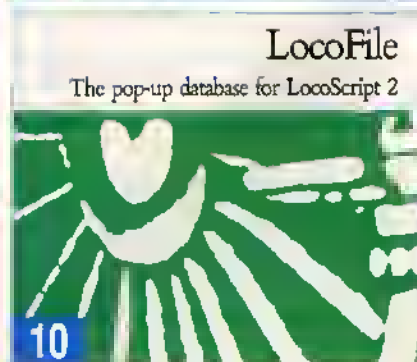
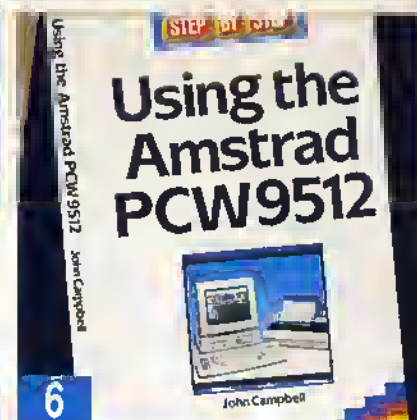
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Control your finances the easy way!

Money Manager PCW provides Individuals, businesses and professional people with a simple yet powerful way of managing their financial activities. All transactions can be entered easily and then presented in a wide variety of reports, ranging from a detailed listing of expenditure for tax purposes to summaries showing, for example, how much money has been spent on petrol or phone bills in a chosen period. Reports can be printed as text, sent to a datafile for further processing or presented in graphical form.

The program includes many helpful features, such as pop-up calculator, context-sensitive help windows and macro commands. The Money Manager package has over 25,000 users in the UK alone. It is the ideal program for people who find that traditional accountancy programs are too complicated, unwieldy and time-consuming for their requirements.

- Any number of data files: Personal, Business, Accounts etc.
- Budget and cash-flow forecasts - which may be updated
- 12 months per file, up to 500 entries (transactions) per month
- Move a file forward a month at a time when required
- All options selected from the main menu
- Up to 20 user-defined accounts: Bank, Cash, Visa, Savings etc.
- Up to 50 user-defined classes of income and expenditure
- A reference of up to 6 characters for each entry
- Your own descriptive text of 18 characters for each entry
- All the codes are displayed on-screen whilst entering data
- Add, modify and delete existing entries at any time
- Quick insertion of standard entries and standing orders
- Entries can be sorted into date order at the touch of a key
- Single character 'mark' for extra reporting selectivity
- Statements showing each entry in detail with running balance
- Reports may show classes merged into logical groups
- Spreadsheet type table showing class totals in each month
- Report showing class totals for each account
- Bar chart for up to 4 selected categories
- Pie charts of up to 20 selected 'slices'
- Detailed bank statement reconciliation with running balance

- Totals for each class of transaction for any period
- Report of monthly income, expenditure and cash-flow etc.
- Report of account and class totals (eg profit & loss)
- Account statistics - monthly max, min, average, balance etc.
- Automatic calculation of VAT, with multiple rates if required
- Detailed VAT reports showing taxable, VAT and gross amounts
- Summary VAT statements in the same format as a VAT return
- Simply ignore VAT features if they are not required
- Print any report to built-in (or separate) printer
- Print any report to a file for word-processing (eg in Locoscript)
- Data search facility to find 'lost' items
- Built-in text line editor for data entry
- Horizontal and vertical scrolling of screen reports
- Pop-up five function multi-line calculator with memory
- Macros to record and replay user-defined reports
- Context-sensitive help windows appear at the touch of a key
- Automatic creation of back-ups for data files
- You can choose which disc drive to use for data on a PCW8512
- Comprehensive 64 page indexed manual
- Two sets of sample data for practice and familiarisation
- Free and indefinite telephone support

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ided for all AMSTRAD PCW computers.  
support and require no disk swapping.

No Disk Swapping

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The best-selling education package  
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packs for the under 5s, 5-7 yrs and  
7s. With 6 games in each pack and  
conforming to the National

Curriculum: 8000+ Value Verdict 16

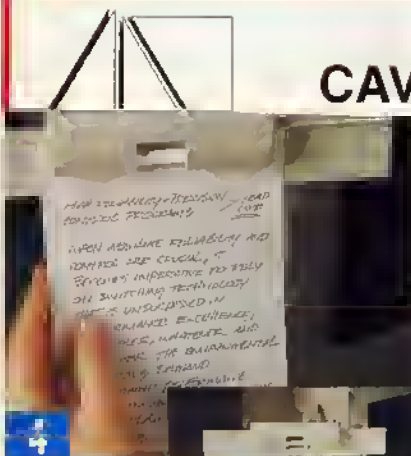
R.R.P. £24.99

Our Price £19.99

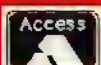
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# Postscript

*Welcome to this month's Postscript – the pages where you have your say! So, what's in store this month? Well, we've got PC posers, keypad queries, speed searches – and much, much more! If there's anything you'd like to add, let us know; the address is Postscript, 8000 Plus, 30 Monmouth Street, Bath BA1 2BW. Sorry, but we can't answer correspondence personally*

## Going spare?

With reference to the April issue of 8000 Plus, I have to congratulate and thank you for the article 'On the Mend'.

I have been without my printer since December last year and having been quoted between £40 to £100 for repairs, was still undecided as to whether to opt for a repair or a new printer.

After reading the said article I set about inspecting my printer and I found not one hairline crack but three near fractures in the armature.

I telephoned CPC Spares on Monday 25th March and requested a replacement for the offending part. My order was dealt with swiftly and politely and I was both pleasantly surprised and pleased when the new armature arrived by first class post Wednesday 27th March!

My printer was back in the best of health within the hour. CPC and yourselves are to be congratulated, CPC for their excellent service and 8000 Plus for excellent articles.

My subscription has certainly paid for itself, my thanks to all, including Geoffrey, Steve and Bernard who helped to compile the article.

L. Edgar  
Gateshead, Tyne & Wear

**8000 Plus:** It's a pleasure, Mr Edgar. On The Mend was featured in response to the enormous amount of letters which we had on the subject of PCW repairs in general. It is also a great help to have the support of a company such as CPC Spares; yours was one of many letters which we received following last month's article, and most of them echoed your sentiments about the service offered by CPC. And of course, PCW/8000 series owners hadn't felt neglected; this month's fully illustrated print head cleaning feature on page 57 is just for them!

## Vital statistics

I have an Amstrad PCW 8256 and I would like to update it for using LocoScript PC. I have added the SCA Rampac for more memory. I also have

LocoScript 2, LocoFile, LocoSpell, LocoFont set 1, CP/M plus, Money Manager Plus and Micro Design 2

What do I need to be able to run LocoScript PC? Will all the programs that I have work with it? Will the new Teqnique keyboard work with it?

If you could answer these questions for me I would be very grateful.

R M B Jones  
Millon Keynes, Bucks.

**8000 Plus:** The one thing which you have left off the list is the most important one – and that is the need for a PC itself. Mr Jones. This will enable you to run the programs you are interested in. Unless you have a PC, there is no point by which you can run Loco PC on the PCW, as the machines have a different operating systems and disc drive sizes. Once you have a PC, then you will be able to use programs like Micro Design in their PC version with no trouble at all. Why not turn to page 46 of this issue, and take a look at some of the other 'hard format' software on the market?

## Easy PC

Help! Contemplating, as I am, the purchase of a PC, Karen Donaghy's article in the April issue, which promised to show how I would be able to transfer my precious PCW-based LocoScript documents to it seemed like manna from heaven.

Joy seemed unconfined when she suggested that the best way of achieving this was to fit a 5.25 inch 40/80 track disc drive since I had already done so.

Then gloom descended. It appears that I also need a mysterious program called TDOS. Mine is not a Pace disc drive but one from another supplier advertising in your magazine. It did not come with TDOS. Please does anybody out there sell the software separately?

B Luckhurst  
Maidenhead, Berkshire

**8000 Plus:** Yes, is the simple answer! You can obtain similar software to TDOS from a good deal of the advertisers in 8000 Plus. One such program that we have looked at recently is 2-in-1 (version 2) from Maonvour

Computing of Strathclyde (041 941 3120). It costs £29.95. Many second disc drives are sold 'bundled' with software – and it might be worth checking to see if yours did not – but 2-in-1 is sold separately as well. So, all you have to do is carry out a spot of window shopping via the pages of this magazine, and you'll be in fine fettle to lift that gloom! Good luck!

## Hurry up!

I own a PCW8512 machine which has given me sterling service over the past 5 years. However, I believe the time has come to bring its attributes more in line with the capabilities of modern PCs.

The three areas that I find frustrating are all caused by the slowness of the process, namely boot-up, LocoScript spell-checker and the Printer.

Reading your magazine I have come across software packages like 'Sprinter', but don't know whether they would help. I am prepared to buy different word-processing software and even a new printer if they would reduce the time wasted, but need your excellent advice.

DCI Grimsdale  
Chippenhams, Wiltshire

**8000 Plus:** Well, DCI, you have hit the nail on the head with the mention of Sprinter, which is actually a hardware unit. At the moment, there is no other product of its kind, and even at a cost of £89.70, it is a very small price to pay for obtaining the extra speed which you – and many other users – desire.

Sprinter comes thoroughly recommended by 8000 Plus, in all respects, it is manufactured by Cirtech, at Monksford Stables, Newtown St Baswells, Maccles, Scotland.

## Howard's Rae

As much as David Langford would like me to "grash my teeth and prepare a strong letter about how he should buy our disc of printer drivers", I feel little need to do so.

I need only quote from Alec Rae's article in the Canon BJ-10c: "try as ➤

we may, we never managed to get a £ sign from this printer except by using the LotusScript printer driver". I think this sums up the position very well!

All our Printer Drivers are in one convenient package – the Printer Support Pack. It is equally suitable for the PCW8256, 8512 or 9512 and costs £29.95 plus VAT.

**Howard Fisher,  
Locomotive Software, Dorking**

*8000 Plus: Message received and understood, Howard!*

## Crazy driver?

The result of the Budget's increase of VAT was to persuade me to buy a new printer for my 8512. At the same time I decided to upgrade to a 24-pin to improve the output quality and decided on one of the reasonably priced ones in the MJC Supplies ad in the March edition of 8000 Plus.

As you will be aware, it doesn't just stop there, does it? I can understand the need for an interface and at least that is also useful for other add-ons, but I also have had to buy another printer driver to run LotusScript.

Again, that I can understand, but I cannot accept having to pay nearly £30 for the privilege.

To obtain the one or two files necessary, I am required to purchase a Printer Support Pack for £29.95 from Locomotive Software which will, no doubt, contain no end of files which will be of no use to me at all – and such is the nature of the industry, that it will be of no use at all when I come to buy my next printer.

As I say, this strikes me as being on the verge of sharp practice. What do your readers think?

**M Walker  
Croydon, Surrey**

*8000 Plus: Throughout the whole PCW industry, Locomotive Software prove themselves, time after time, to be back loyal to the user and realistic in the pricing of their products. Not only that, but their after sales support is exemplary. I therefore hope that I am correct in being 99% sure that you are not depicting Locomotive Software themselves as the instigators of 'sharp practice'. I think what you are really saying is, "why does the purchase of one external item for the PCW necessitate such additional expenditure?" I don't blame you for thinking this; it's rather like saving up for a classic car, and then being totally crippled by the cost of the insurance premium. I have my own views on the subject, but I echo your plea for other readers' opinions. The gambler, as they say, is hereby thrown down.*

## Epson example

I encountered similar problems to David Langford as outlined in the April issue of 8000 Plus when trying to connect an Epson Lx 850 to my PCW9512. Things

seemed to work OK with Micro Design 2 – the main reason for the external printer – and with Printex's simple printer but with LotusScript using the FX 80.PRI driver, the same problem – 'waiting for paper' – occurred.

But something seemed to tug the depths of my mind. Oh yes, wasn't the Printex simple driver set up for use with continuous stationery? Well! I made a copy of LotusScript for use exclusively with the external printer and, I must confess, I lied to LotusScript. I told it that the paper I was using was 11 inch fanfold even though in truth it was single sheet A4.

The settings.STD file was set up for the FX80 to be the default printer and 11 inch fanfold to be the default paper. When the sheet of A4 finishes printing the printer thinks the stationery has run out and asks for more. LotusScript is none the wiser about the cruel deceit and all works well. Whether using the printer driver disc would avoid the need for deceit and lead to a clearer conscience ...

**AM Smith  
Caerliff, Mid Glamorgan**

*8000 Plus: My mother-in-law taught me never to tell lies, AM, but I'm sure in this case she'd forgive me. Thanks for the info, I'm sure you've helped a number of Epson-ers.*

## Read all about it!

As Karen Donaghy observes (issue 55), the recent offer by Amstrad of 8256s produced many new 8256 users.

One of them is me. While well pleased with the LotusScript and Midland side of things, for which adequate documentation is available, I am rather disappointed with the CP/M Plus, GSX, and DR Lago side of things, of which the same cannot be said. The packaged manual refers me to Amstrad's "Soft 971: A Guide to CP/M Plus" and "Soft 160: A Guide to Logo", and ends the description of many of the utilities with the refrain "This utility is not covered any further in this manual".

Enquiries at Digital Research and Amstrad having failed to unearth these manuals, I am wondering if this information is going the way of the Egyptian hieroglyphics.

Do you, or any of your readers, know a source of these manuals?

**JKR Barnett  
Thurdean, Hants.**

*8000 Plus: Never mind all those hieroglyphics, Mr Barnett – I've got a much better idea. For GSX info, why not get hold of a copy of 'Picture Processing on the Amstrad PCW' (see this month's Book Look, on page 32 for a full review)? It sounds like just the book you are after. DR Lago is squashed by a great book by J.W Penfold, called Lago for Beginners (£2.95, Bernard Baines (071) 603 2581). No-one has yet come up with a reader-friendly book for CP/M, but try the very comprehensive Amstrad CP/M Plus, by Clarke and Praycs-Lyblie (MML systems, 11 Sna St. London EC2)*

## Quick on the draw

May I be permitted to add further 'phases' to your review of PCWDRAW (The Gould Software File, April '91 issue). As a long hand learning to use a 9512, experiencing great difficulty in installing the software and obtaining a printout, HTB Computers Ltd went out of their way to advise and assist and finally adjusting my copy to suit my Epson LQ-400 printer.

Being experienced your reviewer would not be aware of such after sales service...this firm and other firms for that matter who grace your advertisement pages offer in your readers... I'll give them all a big 'Plus'.

**RW Clarke  
Macclesfield, Cheshire**

*8000 Plus: As the owners of Servignia will no doubt be aware, good shabby produce good buyers, and HTB are one of the finer breeders around for this kind of software. Good to hear your praise!*

## It's not goodbye...

I have been an avid reader of 8000 Plus for some time and have found much of the advice and many of the articles of great interest and extremely useful.

I am about to remove myself to France on a permanent basis and am planning to take my Amstrad 9512 with me for use over there. Can you help with some queries?

a) Is it possible to get software in France or would it all have to be ordered and sent from the U.K?

b) Is there any variation in voltage and would I have to use current converters to power my Amstrad?

c) Are there any different laws about use of I.T. information or the keeping of information in France?

d) Although I get my 8000 Plus from my local newspaper, I will not be able to do so once my move becomes a reality. Will I be able to order it through your service for delivery in France?

**J Stoessl, Lancaster**

*8000 Plus: OK, from the top: a) Yes, but your French would have to be pretty good – if you consider how difficult it is to understand some of the software manuals written in our native tongue, imagine the problems en français! The other question is one of availability – just knowing when an offer and when it isn't. You could still order software from the UK, if you don't mind the marginal increase in expense to cover postage.*

*b) Probably – see the answer to c)*

*c) I'm really not sure – the French Embassy might be able to help*

*d) Mais oui! A year's subscription to 8000 Plus costs £38.40 for those in Europe, which covers speedy Air Mail postage. This would then solve problem a), because you'd be kept up to date with all the latest software releases, and you could still make use of the mail order catalogue which advertise in the magazine. Parfait!*



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
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## Dump hump

Delighted to receive my first issue of '8000 Plus'. Seems full of useful ideas and tips. Sadly, though, the first tip I tried was a screen dump of the LocoScript Disc Manager. When I press Extra and Printer on my PCW 8512, the printer gives a little grunt, puts a quarter of an inch of black dots on the paper and locks up along with the keyboard.

I've tried this several times, always with the same result. I have to switch off and start again. What am I doing wrong?  
**IM Charteris, London**

*8000 Plus: How unsociable! Have you tried screendumping from anywhere other than the disc manager? I've just conducted an 8000 Plus experiment of the same kind on the office 8512 and it's still printing away merrily. Have you tried printing anything in the usual way (rather than using [EXTRA][PTR])? Is your ribbon jammed, your paper slipping, or your bail bar broken? If none of these conditions apply, then I don't know what is going wrong.*

## Transparent facts

I am 74 and need help with LocoFile! It was advertised as being perfect for sorting photographic transparencies; being a keen photographer, often asked to lecture to different groups, I bought the LocoFile package but find that there is no example in the instruction book that relates to what I need. I have tried and tried to understand what I should be doing, but so far have not succeeded. My Amstrad model is PCW 9512 double disc drive.

In brief: I have over 1,000 transparencies which cover my travels to several countries. In each of these countries I have photographed different subject categories, such as "animals" and "children" and so on. Then, within these categories there are sub-categories such as (under "animals") "lions" and "birds", and (under "children") "boys" and "girls". I want LocoFile to locate for me all these categories so that, for instance, I could ask it to find "girls in all countries" or "boys in Brazil and Ethiopia".

I need slightly simpler step-by-step assistance than is in the instruction book on how to set up the system, input data, and retrieve it afterwards. I also have basic questions like:

1. Should all my transparencies be numbered and if so, is it helpful to have different coloured numbers for the different countries?
2. Does each category/sub-category have to have a one-word title or could I, for example, call one "Lions feeding"?
3. How many categories/sub-categories is it possible to have?

I subscribe to 8000 Plus magazine, but have no record of it having dealt with the subject.

**T Fairchild**  
Parson's Green, London

*8000 Plus: I'm so glad your letter*

*arrived when it did. Mrs Fairchild - Karen Donaghy has come to your rescue in this month's LocoFile tutorial, where she has taken a look at LocoFile's indexing facility. I hope that your problem will be solved as a result.*

## Where do I begin?

I have just been given an Amstrad PCW 8256 and I am trying to find out what software is currently available.

Please would you let me know what software or games your company sells together with prices and stockists in the London area.

**B Joyce**  
Mill Hill, London

*8000 Plus: Well, B, the first step is to decide what you would like to do with your PCW, since the term 'software' covers an unfeasibly large square mileage of detail. We list the best of the software currently available in our Good Software File every month, which, over a three month cycle, covers all the most popular applications for the PCW. We also sell certain items at devastatingly reasonable prices in the mail order section of the magazine.*

*So, the answer is to pull up a chair, flick through 8000 Plus, and then go and raid the piggy bank - once you start discovering the joys of some of the PCW software on the market, you'll find it hard to stop spending!*

## Padded out?

Your review of the new PCW keyboard is most interesting. Could you now tell me what the keypad on my 8512 is for? None of the handbooks I've got even mention it, which seems odd in itself.

I suppose it could make a very good invoice typist even quicker; but without the cursors, mathematical symbols and everything else disabled by NUMLOCK it wouldn't really do for spreadsheets. So, just what is it for?

**GF Marshall**  
St. Neots, Cambs.

*8000 Plus: Hmm, it's a very interesting question. As you know, pressing [ALT][RELAY] enables and disables the use of the numeric keypad. It is a nuisance to use it within, say, a LocoScript document to enter a series of figures, because all of the benefits of cursor manoeuvring such as [EOI][PAGE][LINE] and so on are then removed. The only circumstances where it would really come into its own is probably for something like invoice typing; accounts clerks will be more at home with that layout of figures than they would be with the top row arrangement learned by typists for professional qualifications.*

*You could always enable the keypad for use in conjunction with Protext's in-built calculator if you had a long afternoon's worth of bank statement calculations in front of you!*

## The horse's mouth

My attention has been drawn to the letter by John K Glascoedine in the April issue.

I have stressed that copying discs every few months was an extreme measure in the absence of information about the "clip" factors of the various discs on sale. The "clip" factor is a measure of the chance of random dropout of the information held in each bit. It is a statistical measure, so whether a disc fails or not over a long period of time is to some extent pure luck, although conditions of storage will, of course, affect this chance.

Whilst power line fluctuations are, in my view, the most common cause of disc failures, we salvage many discs on which the odd data error occurs at random during their use, sometimes within a few days of first use, at other times after several years of use. These kinds of failure are the random type probably related to the "clip" factor.

Some CF2 discs often fail to format as 720k discs in the high (odd) tracks 141 (21 159). Even when they do format at first, failures invariably then occur at random later in their life in these areas simply because the disc won't hold the data reliably. Using these discs is like playing Russian Roulette and we recommend users to change to another brand, preferably CF2D/CF2DD for the 720k format.

I am sorry if some of your readers were unnecessarily worried by this advice and I would suggest that you try to get some definitive information from the disc manufacturers to publish.

I still support your conclusion "better safe than sorry" - making and keeping several copies of a disc will reduce the risk and correspondingly reduce the need for such a tedious re-copying routine I suggested as the extreme - assuming that the discs aren't all subjected to the same poor conditions.

**Dave Smith (The Disc Doctor)**  
Paddock Wood, Kent

*8000 Plus: Thanks for putting the record straight, Dave - the info which you suggest will be included asap.*

## Gone missing

An article called 'The Facts of Life' was published on pages 44-45 of your January 1991 edition of 8000 Plus, which refers to a file called Mail.232 to be found on the LocoScript 1 master disc supplied with the Amstrad PCW8256 or 8512. I have searched my master disc - and those of my friends in vain for this file. Was this a gift to early users only, or is there some leg-pulling going on here?

**James Howlett**  
Newton Abbot, Devon

*8000 Plus: Leg-pulling? Us? No chance. Mail.232 is one of those notorious 'hidden' files - and you can access it by pressing [F8] for Options and selecting 'Show Hidden Files'.*



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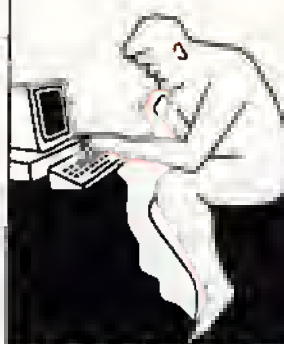
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# Competition

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However, the game can be a source of great pleasure, to spectators and players alike. When the weather is fine, an afternoon's cricket can be one of the most satisfying ways of passing the time. Not so, quite often, for the person who is keeping score. A cricket scoring book is quite a complicated affair - and being able to enter details of all those LBWs, no balls and leg byes requires the closest of attention. And the kind of adverse weather conditions which tend, all too frequently, to interrupt a game, mean that sitting on the edge of the field for long periods of time can be quite an uncomfortable affair.

Now, we all know just how important a role the PCW plays in transforming our daily lives. Most PCW owners will throw their hands up in horror if you venture to ask them how they managed to survive life 'B.PCW'.

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Scorecard, a new program from Sticky Dog Software (cricketers should know the significance of this term!).

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All these factors, plus the ability to print out straight from the program, make Scorecard a powerful and impressive rival to the traditional item.

The forward-thinking among you will by now be scratching your heads and wondering how on earth you can use a PCW at a cricket ground. Well, the answer is, you can - so long as you can find a pavilion with a power point! Even if you can't, the PCW can actually be run from a car battery, making it a positively portable computer!

You can even use Scorecard in the comfort of your own home, to follow a cricket match on television. And, when your favourite players have hung up their bats for the winter, Scorecard can be put to use to play alphabet cricket. Scorecard is a great all-rounder - and we've got three copies of the program up for grabs.

So, all you have to do is to study the questions below, and send in your answers (on a postcard) to Scorecard Competition, 8000 Plus, 29 Monmouth Street, Bath, BA1 2BW. Notice that this address is different to the usual one - and that it is for competitions *only*. Entries to arrive no later than 25th May, please. Good luck!

- 1 Who was the only batsman to have scored 300 and 100 in the same match?  
a Graham Gooch.....b Geoff Boycott.....c John Major?
- 2 Who was the first batsman to hit six sixes off one over?  
a Viv Richards.....b John Major .....c Gary Sobers?
- 3 Who, in 1956, took 7 for 9 for Rutlish Grammar School, and was rated the Evening Standard's best young cricketer of the year?  
a Fred Truman.....b Brian Statham.....c John Major?
- 4 England managed to hold on to the ashes for the majority of the 1980's. In which year did they lose them?  
a 1988.....b 1989.....c 1990

## NEXT MONTH!

### Drive time

One way to link the PCW to the PC is to invest in a 3.5 inch drive. And now, thanks to a brand new product from Silicon City, you can ensure that such a drive is never far from reach. Next month, in a step by step, fully illustrated walkthrough, we show you how to fit an internal - yes, internal, 3.5 inch drive into the PCW9512. And, we're not stopping there. We'll be taking an in-depth look at just what a 3.5 inch drive can do for you. What are the benefits of having this 'extra' fitted to your PCW? Which software should you use? And is it worth it in the long run? Don't miss our special, extended feature next month!

### Home, Sweet Home

If you're fed up with the daily grind of travelling to and from work, the prospect of abandoning that dreary routine and working from home will probably sound extremely inviting. Next month, we take a look at how you can equip yourself to set up an office at home - and still remain in touch with all the latest news and information. So, if nine to five is getting you down, tune into June's special homeworking feature!

### Traffic control

Remember LocoLink, the utility which allows you to transfer documents created on the PCW straight over to a PC? Well, its creators, Locomotive, have been hard at work on a very important upgrade to the original version. We'll be taking a peek at the new link LocoLink in June's 8000 Plus. You can't afford to miss it!

### Mice work!

With so many of you venturing into the world of desk top publishing, chances are you'll be coming into contact with that devilishly helpful add-on, a mouse. We've had a good deal of enquiries about mice; what kinds are there, what do they do, can they be used in other programs - your lists have been endless. So, if want the lowdown on mice of the non-furry variety, trap yourself a copy of June's 8000 Plus now!

**The June issue of  
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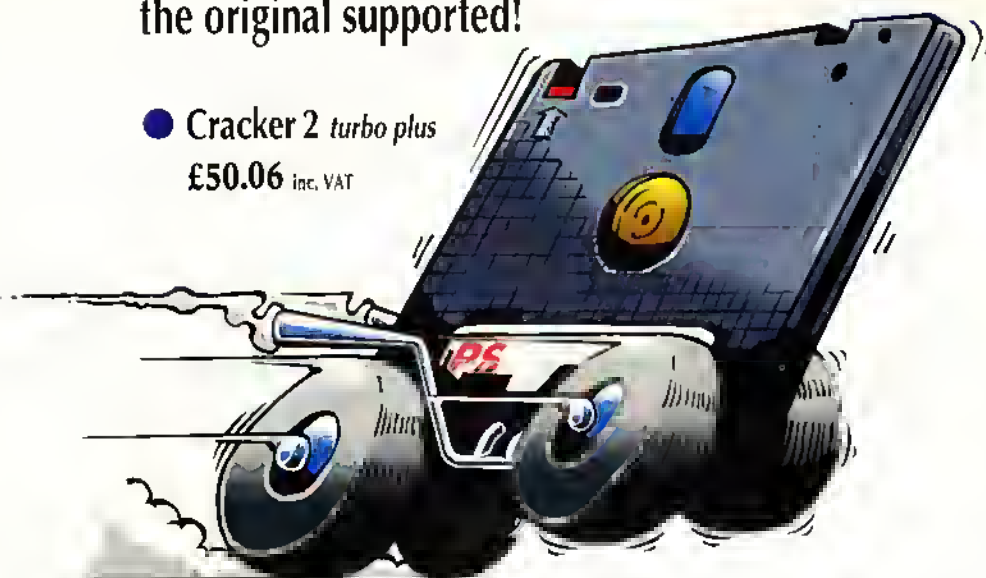
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